

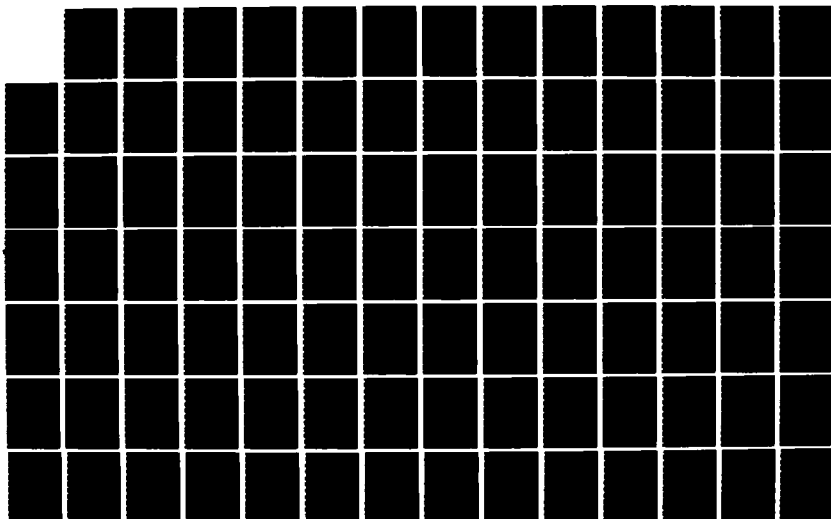
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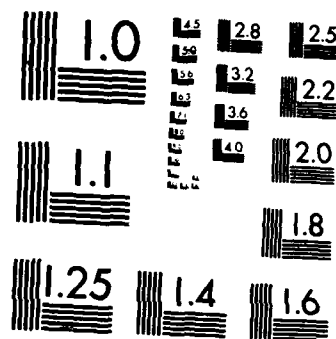
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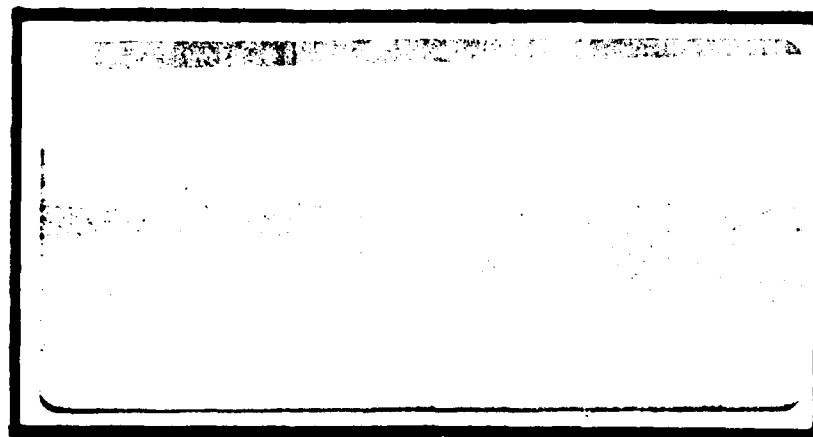
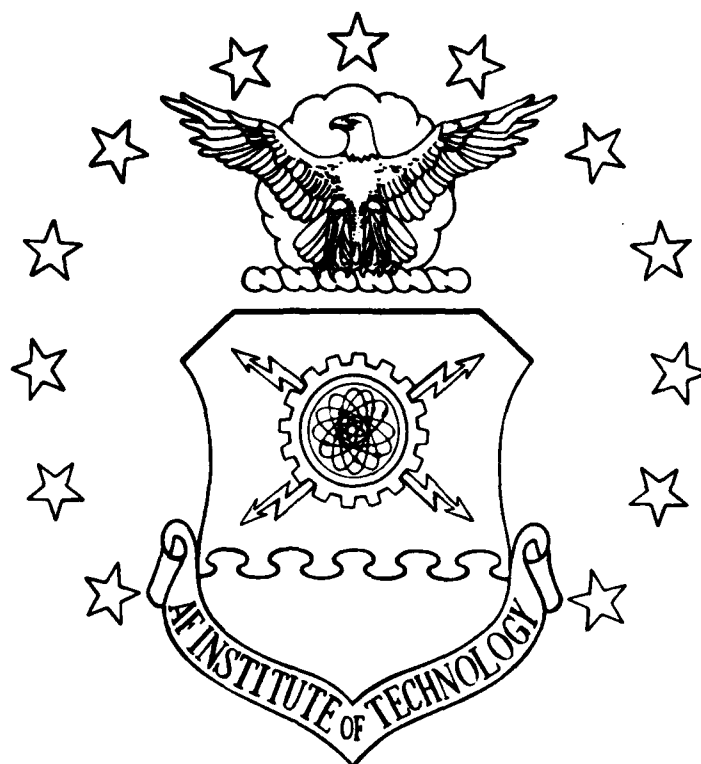




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AFIT/GLM/LSB/86 **S-53**

THE PERCEPTION OF PREGNANCY
AMONG ENLISTED WORK GROUP MEMBERS

THESIS

Judyann L. Munley
Captain, USAF

AFIT/GLM/LSB/86S-53

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THE PERCEPTION OF PREGNANCY
AMONG ENLISTED WORK GROUP MEMBERS

THESIS

Presented to the Faculty of the School of Systems and Logistics
of the Air Force Institute of Technology
Air University
In Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Logistics Management

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September 1986

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Preface

The purpose of this study was to analyze how enlisted work group members perceive pregnant co-workers. Although numerous Department of Defense studies have examined the physical limitations associated with pregnancy, the social/psychological aspects of a work group member being pregnant have not been researched. These perceptions are important as they may affect group performance, morale, cohesion, etc. Before one can draw conclusions about how the presence of a pregnant co-worker affects the outcomes of the work group, one must understand what perceptions exist.

In writing this thesis I received a great amount of help from others. I am forever indebted to my thesis advisor, Major John Ballard, for his guidance and perseverance. Without his help this thesis would have never materialized. I also wish to thank HQ USAF/DP for making available selected data from the Organizational Assessment Study database for accomplishment of the research reported herein. Finally, I wish to thank my three best morale supporters, Captain Bill Munley, Mr. Jack Linkiewicz, and Captain Gene Sisk. All three provided the push I needed to see this project to its completion.

Table of Contents

	Page
Preface	ii
List of Figures	v
List of Tables	vi
Abstract	vii
I. Introduction	1
General Issue	1
Specific Problem	2
Research Question	3
Scope of Research	3
Approach to Problem	4
II. Literature Review	5
Historical Growth	5
Integration Costs and Issues	9
Economic Considerations	9
Physical Strength and Stamina	12
Combat Exclusion	12
Pregnancy	13
Specific Pregnancy Studies	14
DOD Pregnancy Policy	22
Air Force Pregnancy Policies	23
A Conceptual Framework	25
III. Method	31
Population	31
Sample	31
Questionnaire	32
Variables	33
Dependent Variables	34
Independent Variables	34
Individual Differences	34
Characteristics of Group Structure	35
Situational Factors	37
Data Analyses	39

	Page
IV. Results	41
Investigative Question 1	41
Investigative Question 2	43
Sex	43
Age	43
Personal Experience with Pregnancy	45
Length of Time Assigned to Work Group	47
Investigative Question 3	47
Size of Work Group	48
Group Cohesion	50
Supervisor Ability and Behavior	53
Group Performance	55
Investigative Question 4	57
Physical Location	57
Overseas versus CONUS	57
Traditional versus Nontraditional	58
Percentage of Women in Work Group	59
Strength Required on the Job	61
V. Discussion	63
The Perception of Pregnancy	63
Individual Differences and the Perception of Pregnancy	64
Characteristics of Group Structure and the Perception of Pregnancy	67
Situational Factors and the Perception of Pregnancy	71
Conclusions	74
Limitations	76
Recommendations	77
Appendix A: Questionnaire Items	80
Appendix B: Overall Results	87
Bibliography	99
Vita	103

List of Figures

Figure	Page
1. Mitchell's Framework for Understanding Group Behavior in Organizations	26

List of Tables

Table		Page
1.	The Perception of Pregnancy	42
2.	The Perception of Pregnancy and Respondent's Age	44
3.	The Perception of Pregnancy and Personal Experience with Pregnancy	46
4.	The Perception of Pregnancy and Length of Time Assigned to Work Group	48
5.	The Perception of Pregnancy and Size of Work Group	49
6.	The Perception of Pregnancy and Cohesiveness	51
7.	The Perception of Pregnancy and Supervision	54
8.	The Perception of Pregnancy and Perceived Group Performance	56
9.	The Perception of Pregnancy and Percentage of Women in Work Group	60
10.	The Perception of Pregnancy and Strength Required on the Job	62

Abstract

This thesis examined how 11,847 Air Force enlisted work group members stationed at 30 bases throughout the world perceived pregnant co-workers. As a framework it used Terence R. Mitchell's model for understanding group behavior. Individual differences, characteristics of group structure, and situational factors were examined in relation to the perception of pregnancy as a problem.

Analyses were accomplished using data extracted from the Air Force Survey of Work Groups prepared for the United States Air Force by the National Opinion Research Center, and Systems Research and Applications Corporation. Analyses indicated only 15.5 percent of the sample perceived pregnancy as a problem; less than 10 percent of the sample indicated pregnant women do not carry their own weight on the job. There was no difference between how males and females perceived pregnant co-workers.

The data indicated pregnancy was perceived to be more of a problem by those members who 1) belonged to less cohesive groups, 2) perceived poor supervision in their work group, 3) had been assigned to their work group for over two years, 4) belonged to groups with more than 25 percent women, 5) worked in nontraditional jobs requiring strength, and 6) were pregnant or had a pregnant spouse. These and other findings are discussed.

THE PERCEPTION OF PREGNANCY
AMONG ENLISTED WORK GROUP MEMBERS

I. Introduction

General Issue

The greatest change that has come about in the time that I have been in the military service is in the extensive use of women. That is even greater than nuclear weapons, I believe, as far as our own forces are concerned . . . We have wonderful servicewomen doing extraordinary things and doing them well, but we have taken a male institution in a very short period of time and turned it into a coed institution, and it has been a traumatic exercise for us. We go further than almost any nation in the world in using women in the military forces. (38:27)

As General John W. Vessey, Chairman of the Joint Chiefs of Staff, stated in testimony before Congress in 1984, women are being used in the military extensively and in great numbers. In fact, women are being accepted into the United States Armed Forces more readily today than at any time since World War II (22:24). A recent Congressional directive - the 1985 Department of Defense (DOD) Authorization Act - requires even greater acceptance and utilization of women. Thus, the number of women in the Armed Forces will rise even more. In fact, according to the DOD Authorization Act, at least 19 percent of those entering the military during fiscal year (FY) 1987 and 22

percent of those entering in FY 1988 will be women (37). As the number of women in the services rises, the concentrations of women in work centers will also rise.

Of the 201,000 women presently assigned to the four services, it is estimated that at any one time approximately 7 percent are pregnant (17:82). Given the growing number of servicewomen, the number of pregnant women in the services will also rise.

Specific Problem

Although numerous Department of Defense studies have examined the physical limitations associated with pregnancy, it appears that no studies have specifically examined the social and psychological aspects of a work group member being pregnant. How do work group members perceive a pregnant co-worker? Is pregnancy in the work place perceived to be a problem? Such perceptions are potentially of much importance. Negative worker perceptions, for example, may adversely affect group performance, productivity, and morale. Hence, it is important that work group perceptions toward pregnant co-workers be examined. Until one understands what perceptions exist, conclusions about how pregnancy affects the outcomes of work groups cannot be drawn.

Therefore, the lack of research on the work group members' perceptions of pregnant military women in work centers leads to the primary research question.

Research Question

The general question to be investigated in this thesis is: How is pregnancy perceived by Air Force enlisted work groups with regards to individual differences of work group members, group structure, and situational factors?

To answer this question, the following investigative questions are asked:

1. How is pregnancy perceived in enlisted work groups? Is it perceived to be a problem?
2. Do individual differences (sex, age, personal experience with pregnancy, and length of time assigned to work group) among group members affect how pregnancy is perceived in the enlisted work group?
3. Do the characteristics of group structure (size of work group, group cohesion and morale, supervisor ability and behavior, and group performance) affect the perception of pregnancy in the enlisted work group?
4. Do situational factors (physical location - overseas versus continental United States [CONUS] and traditional job locations versus nontraditional job locations, percentage of women, and amount of strength required on the job) affect the perception of pregnancy in the enlisted work group?

Scope of Research

This study examines how pregnant co-workers are perceived by enlisted active duty military members

stationed at 30 bases throughout the world. Of the 30 bases selected, 22 were located in the continental United States, 7 were overseas, and one was located in Alaska. The study does not focus on specific Air Force Specialty Codes (AFSC), but rather a cross section of the enlisted active duty work group population.

Approach to Problem

To assess enlisted work group members' perceptions of pregnant military co-workers, this thesis uses the database created for the Air Force Organizational Assessment Study. This study was conducted in the fall of 1984 by the Systems Research and Application Corporation (SRAC), Arlington, Virginia, for the Air Force Special Study Team, Headquarters USAF.

The Organizational Assessment Study was the largest survey of enlisted women ever sponsored by the United States Air Force (36:1-1). It was done to obtain data germane to various force structuring issues. The database that resulted contains a wealth of previously unanalyzed data concerning how enlisted service members perceive pregnant co-workers. The data was analyzed to determine answers to the investigative questions and the general question posed by this research.

II. Literature Review

This chapter examines pertinent literature concerning women in the United States Armed Forces. The chapter begins by explaining how the number of women in the services has grown since the creation of the Army Nurse Corps in 1901 until the present day. It also examines specific issues (economics, physical strength, combat exclusion, pregnancy) that have arisen as a result of the increasing number of women in the services. In addition, this chapter discusses Department of Defense (DOD) and Air Force policies concerning pregnant service women, as well as research that has been done by the DOD with regards to pregnancy and its effects on the military. Lastly, it presents a model for understanding the behavior of groups in organizations. The model provides a framework for identification of variables to study in the formation of work group perceptions.

Historical Growth

The creation of the Army Nurse Corps in 1901 marked the beginning of the slow evolution of women in the United States military. From that time, women were allowed to serve in a reserve status and remain on active duty for no more than six months after the cessation of military hostilities (35: Appendix 1, 1-1). For example, during

World War II approximately 140,000 women belonged to the Women's Army Corps (WAC) (4:13). Created as a temporary wartime emergency auxiliary force, the WAC's sole purpose was to release men for combat duty (22:24). Once victory was won, however, women returned to the civilian sector (33:29). In 1948 a milestone was reached when Congress passed the Women's Armed Services Integration Act, Public Law 625 (35: Appendix 1, 1-1). With the passage of this law, women were no longer considered temporary personnel used only in time of hostility. Although it limited the number of women in the services to 2 percent of the total force and froze promotions at the 0 to 5 level, the Act provided for the full integration of women into active duty military, rather than permitting only temporary use during times of crisis.

Shortly after the passage of the Women's Armed Services Integration Act, the Defense Advisory Committee on Women in the Services (DACOWITS) was created. Formed in 1951, its purpose was to advise the Secretary of Defense on all matters related to women in the military (22:26). By 1952 the number of women in the services increased to 46,000, largely a result of the Korean War (22:25). During this time, women served primarily in medical and traditional specialties. Later that decade, in 1956, Public Law 845 was passed, officially ending the all-male militia in the United States Army and Air National Guards.

Provisions similar to those established in Public Law 625 were applied to reserve female officers and enlisted women (35: Appendix 1, 1-2).

From 1953 to 1961 the number of women in the military gradually decreased to about 32,000. In 1964 the number of women entering the services began to rise once again (22) and has continued rising since (15:659). In 1967 the 2 percent ceiling and promotion limitations established by the Women's Armed Services Integration Act were abolished when Public Law 90-130 was passed (4:13). In 1969 the Air Force took the lead among the services by accepting women into the Reserve Officer Training Corps commissioning program for the first time. The Army and Navy followed the Air Force lead by opening their commissioning programs to women three years later (22:26). In 1972 the Secretary of Defense directed services to double the number of women in each service by 1978 (35: Appendix 1, 1-5). Shortly thereafter, in 1976, the passing of the Stratton Bill heralded a major change as the doors to service academies were opened to women. (18:31).

In 1978 Congress passed Public Law 96-485, abolishing the Women's Army Corps and all other "women" components, such as the Women in the Air Force (WAFS) and Women Accepted for Voluntary Emergency Services (WAVES) (22:26). Almost immediately thereafter, Public Law 96-513 - The Defense Officer Personnel Management Act (DOPMA) - was

signed. This act equalized the treatment of both male and female officers and assured women equitable promotion and assignment opportunities (22:27).

By the end of FY 1984 the number of military women in the DOD had reached 201,000, or 9.5 percent of the total military strength (22:25). The Air Force alone had increased its number of women to over 67,140 in mid-1984, or 11.3 percent of its total force (22:25). As of September 1984, 69,513 members of the Air Force were women, 11.64 percent of the total force (1:184).

The increasing number of women entering the military in recent years can be attributed to several factors. In 1973, after the implementation of the all volunteer force, the number of female recruits rose dramatically (15:659; 18:31). The turmoil and lagging economic conditions of the 1970s made job security, training, and equal pay offered by the services attractive (25:565; 14:1-2). Additionally, society broadened its attitudes about women in the work force in general, and stigmas were no longer attached to women serving in the military (22:25). Moreover, the services opened many opportunities to women spanning the full range of job specialties, with the exception of combat positions (25:565; 22:25).

According to the 1985 DOD Authorization Act, all four services will experience an increase in the number of women in their ranks. At least 19 percent of those entering the

military in FY 1987 and 22 percent of those entering in FY 1988 will be women (37). Because the Air Force has the fewest number of combat positions, the number of women used in this service will be high. As a result, Congress directed the Air Force to examine the accession and utilization of its enlisted force to determine its total demand for women. Congress reasoned that by increasing the number of women in the Air Force, men would be denied entry and the other services would benefit. (35:ix). Regardless, the fact remains that the number of women in the Air Force will continue to grow.

Women today serve in every Air Force career field with the exception of those prohibited by law. No nation, not even Israel or the USSR, has ever employed women to the extent that they are being employed in the United States military today (18:33).

Integration Costs and Issues

Although the expansion of women in the services has been successful (18:33), the integration has brought with it several costs, issues, and concerns. These issues include economic considerations, physical strength limitations, combat exclusion, and pregnancy.

Economic Considerations. The United States government initially had been forced to spend large amounts of defense money on provisions essential to permit full integration. Because of physiological differences between men and women,

military clothing and equipment had to be redesigned. For example, because of the greater narrowness of women's feet, the standard combat boot created a proneness to injury. As a result, a female combat boot had to be designed (18:38). Because of this and other redesigns, an increase in military equipment and clothing has occurred.

The integration has also necessitated the creation of additional facilities. Requirements for separate facilities have led to the duplication of latrine facilities, as well as the creation of female dormitories (3:4; 18:38). Living quarters on ships have had to be redesigned to insure male sailors do not routinely pass through female living areas (18:38). In addition, medical support have had to be expanded to include more gynecological specialists (18).

Although these initial expenses appear high, Martin Binkin and Shirley Bach hypothesized in 1977 that the initial dollar outlays to accommodate the integration would be offset by reductions in the costs of dependents, absenteeism, and attrition associated with increasing the number of women in the military. After studying a group of Navy personnel for four years they discovered that overall dependent support costs (housing, medical care and travel expenses) averaged about \$1,414 for each male enlistee per year and \$960 for each female enlistee. Binkin and Bach attributed these savings to the fact that female recruits

tend to have less dependents. In addition, about one-half of all military women marry military men who, in turn, share dependents' expenses.

Binkin and Bach also believed cost savings could be determined by examining the costs of unauthorized absences of greater than 24 hours. In calculating these costs, Binkin and Bach included the costs associated with reporting, apprehending, processing, trying, and confining the offender. They found that each unauthorized absence of less than 30 days cost the military, on average, \$180. Costs for those absent more than 30 days (deserters) were considerably higher at \$940. On the basis of these figures and the total number of men and women in their study who were absent without leave, Binkin and Bach found that the cost per unauthorized absence was \$189 for men and \$27 for women.

In addition to the economics of dependents and absenteeism, Binkin and Bach also studied the costs associated with the attrition of men versus women. Based on comparisons of men and women in the cohort, Binkin and Bach found that the attrition rate for women was somewhat higher than that of men. Of every 100 women enlisted, 39 failed to complete a four-year enlistment; of every 100 men enlisted, only 34 separated. Binkin and Bach attributed the women's higher percentage of separations to pregnancy and parenthood, and found that men separated most

often because of misconduct, dishonorable and bad conduct discharges.

Results of the Binkin and Bach study suggest that there may be some cost benefits associated with women in the military when one considers the costs associated with dependents, absenteeism, and attrition (now that women are no longer forced to leave the military when they become pregnant).

Physical Strength and Stamina. Aside from economic considerations, full integration has caused several other significant issues to emerge. One of the issues highlighted as a major problem whenever women in the military are discussed is the difference between male and female physical strength and stamina. On the average, men do possess greater strength capacity than women (23:52). Because of lower muscle fat ratios, women typically perform 20 to 40 percent lower than men on strength tests (18:34-35). The question is not who has more strength, but whether each man or woman has enough strength to do his or her job. To this end, the services are identifying job specific physical standards and incorporating strength testing into the accession process (2).

Combat Exclusion. Combat exclusion is another issue frequently discussed when the subject of women in the military arises. Presently, Title X of the U.S. Code and internal service regulations bar women from combat roles

such as infantry soldiers, fighter pilots and crew members on war ships (18:31). The Women's Equity Action League and some defense officials advocate removing these restrictions to allow women to serve in any specialty for which they qualify (25:566). Some believe the combat ban inhibits career options and advancement opportunities for military women because they feel duty in combat assignments can be a prerequisite for promotion (25:566). In reply, Secretary of Defense Casper Weinberger issued a memo to service secretaries in which he took a strong position to ensure combat exclusion is not used to keep women out of jobs which would prevent their advancement. He stated:

The policy of the DOD is that women will be provided full and equal opportunities with men to pursue appropriate careers in the military services for which they qualify. Military women can and should be utilized in roles except those explicitly prohibited by combat exclusion statutes and related policy. Combat exclusion will not be used to justify closing career opportunities to women. The combat exclusion rule should be interpreted to allow as many possible career opportunities for women to be kept open. (39:26)

Unless major changes are made in laws that govern the United States military, women will continue to be forbidden to serve in combat positions.

Pregnancy

Although the issues of economics, combat exclusion, and physical strength limitations associated with

integration of women into the military have been studied and discussed, very few have investigated the effects of what Levin considers the "most pervasive of all friction factors" - that of pregnancy (18:38). Believing pregnancy affects readiness, attrition, and morale, some advocate limiting the number and use of women in the military.

Specific Pregnancy Studies. Specific issues that consistently arise concern the effects of pregnancy and motherhood on military readiness, personnel losses through attrition and absenteeism, and the morale of work groups (11:267). Traditionalists hold the viewpoint that both national defense and U.S. image abroad could be weakened by the effects of pregnancy on readiness. Some feel pregnancy is sufficient reason to limit the recruitment and use of women in the military (25:567). Nontraditionalists, however, either support an optional discharge policy or a "no-separation" option (11:267). While controversy has continued since an optional discharge policy was activated, very few studies have been published describing the effects, if any, of pregnancy.

In 1977 Olson and Stumpf conducted a study on pregnancy in the Navy enlisted force and its impact on absenteeism, attrition, and work group morale. The results of this study indicated that abolishment of the optional discharge policy would increase the number of days lost by female military members because of an increase in

pregnancy related absences (24:33). This change in policy would also lower women's attrition rates to equal that of men because more women would remain on active duty (24:33). However, an increase in the number of pregnant women on active duty could have an impact on work group productivity and morale (24:34). The study also assessed the impact of reinstating the mandatory discharge policy. Olson and Stumpf concluded that this change would decrease female absenteeism because less females would remain on active duty and increase female attrition and work group turnover. This, in turn, could affect performance (24:34). In addition to uncovering the effects of changing the pregnancy policy, results of the study also indicated that pregnant military women who did remain on active duty created few or no hardships for their work groups. Olson and Stumpf attributed this lack of hardships to the fact that pregnant military women are often reassigned to light duty areas, receive help from co-workers, or impose extra work hours on themselves to compensate for their physical limitations and time missed at work (24:34).

A second major Navy study was conducted by Hoiberg and Ernst (11) to determine the effects of pregnancy and related conditions on performance, retention, and hospitalization rates of Navy enlisted women (11:275). Regarding retention rates, Hoiberg and Ernst found that the role of mother and sailor seemed compatible, which,

in turn, was reflected by relatively high enlistment and low hospitalization rates. Hoiberg and Ernst attributed these findings to five specific areas: 1) policy changes, 2) marital composition of the Navy, 3) occupational specialties, 4) military pay and benefits, and 5) medical care (11:275).

In examining the marital composition of the Navy, Hoiberg and Ernst discovered that with the recision of the regulation stating only single females could enlist, the number of married sailors rose. In response to an increasing number of married military members, the Navy developed family related programs, established child care facilities, and provided educational courses on child care at a faster rate than most civilian organizations. Hoiberg and Ernst concluded that as a result of the Navy's increased concern for the well-being of families, housing, medical care, and child care provisions became important issues associated with increased reenlistment rates (11:276).

According to Hoiberg and Ernst, occupational specialties also contributed to higher retention rates. They observed that women in traditional career fields, such as clerical and administrative specialties, had the highest reenlistment rates (11:276). They attributed this to an affinity between the two traditional roles of motherhood and clerical or office work. In addition to higher

reenlistment rates, women in traditional specialties also tended to have higher pregnancy-related hospitalization rates when compared to women in nontraditional jobs. They also found that as women in nontraditional jobs became supervisors, motherhood appeared more compatible with that of a sailor (11:277).

The fourth item Hoiberg and Ernst attributed to higher reenlistment rates was military pay and benefits. At the time the study was completed economic conditions of high unemployment and high inflation existed. According to Hoiberg and Ernst, this depressed economic condition deterred many women from leaving the financial security offered by the Navy. This, in turn, reduced the number of separations and improved retention (11:277).

Lastly, Hoiberg and Ernst concluded that, because of the rising costs of civilian medical care, pregnant military women elected to remain in the Navy, thereby increasing retention rates (11:277).

Concerning hospitalization rates, Hoiberg and Ernst predicted that a decrease in the total number of pregnancy related hospitalizations would occur because of the abolition of abortion procedures performed in DOD facilities and the expansion of women's occupational assignments to nontraditional specialties (11:278).

At the same time the Navy was conducting its research, the Army also conducted two studies of its own. The first

of the two Army studies was conducted by a group called the Women in the Army Study Group. Aimed at reviewing current and planned policies on the utilization of women, the group listed several findings relevant to pregnancy (40).

In conducting this research effort, the group surveyed each major Army command and received several comments relevant to the issue of pregnancy. A majority of the major commands stated that the presence of pregnant servicewomen had a disruptive effect on the continuity of unit and individual training (40: Sec VII, 5). The group attributed this to the fact that pregnant servicewomen are exempt from unit field training because of medical limitations. The major commands also commented that the presence of pregnant servicewomen had an adverse effect on morale due to resentment toward pregnant servicewomen by servicemen who had to perform all or part of a pregnant servicewoman's duties during pregnancy-related absences (40: Sec VII, 5). Additionally, male soldiers indicated resentment over assignments to remote locations in lieu of the assignment of pregnant servicewomen to these same locations. Some soldiers also expressed a belief that pregnant servicewomen received preferential treatment for duty hours, assignments, inspections and sick call (40: Sec VII, 5).

However important these comments may seem, the most significant impact reported by the major commands was in

the area of unit readiness, deployability, and mission accomplishment. According to Army policy, pregnant servicewomen are not deployable to overseas areas but are still counted against unit position rosters, thus prohibiting requisition of replacements (40: Sec VII, 6). Therefore, major commands contend that when charged with deploying, they are forced to deploy with less than full strength.

Another problem cited by the major Army commands was that the option for discharge and timing thereof rested with individual servicewomen (40: Sec VII, 6). As a result, the commanders of army units cannot project personnel losses or request replacements to cover those losses.

In conclusion, the study group stated that Army mission effectiveness was affected by the presence of pregnant servicewomen (40: Sec VII, 10). The group attributed their conclusion to the belief that pregnant women cannot perform a full range of duties and the fact that much duty time before and after the pregnancy is lost. As a result, the group recommended that the Army should attempt to reinstate a mandatory pregnancy discharge policy (40: Sec VII, 10).

The second of the Army studies, conducted by Bolin and others, was undertaken to determine how Army policy on pregnancy affected the general acceptance of women soldiers by unit commanders in the Eighth U.S. Army in Korea. The

findings of this study indicated that those commanders with more than six women assigned (8 percent or more of their total force) were more often concerned about pregnancy-related matters than those with less women assigned. This stemmed from the fact that some commanders had experienced multiple pregnancies in assigned units at the same time (3:3). Because of the policy which permits pregnant servicewomen to remain on active duty, this, in practice, means that a commander must carry a pregnant member on unit rosters but cannot assign her a full range of duties. Bolin concluded his study by recommending the Army reexamine its current policy of maintaining pregnant women in the military (3:15). He suggested that the impacts of pregnancy could affect morale and motivation among the troops. He also suggested limiting the number of women assigned to each unit. Although Bolin and his group believed women were doing well in the Army, the group believed the selective assignment of women would reduce conflict between equal opportunity and mission effectiveness (3:15).

Regarding absenteeism, Nabors reports that although statistics do show that women lose a large amount of time due to pregnancy and pregnancy-related conditions, lost time must be viewed in relation to all lost time, both that of military men and women (23). Nabors pointed out that, according to a DOD study on women in the military, women,

despite pregnancy, lose only about half as much duty time as men (23:57). The DOD, in turn, contends that men lose even more time due to alcoholism, drug abuse, and desertion (25:567). Likewise, Hoiberg and Thomas state that men lose far more time because of injury-related conditions (12:24).

With regards to pregnancy and its impacts on readiness, Nabors states "units which must absorb extended absences of its soldiers without replacement cannot perform missions to peak efficiency" (23:58). Since others have shown that pregnant servicewomen do not lose as much time, on average, as servicemen, it is difficult to conclude from these studies that pregnancy itself has an adverse effect on readiness. The effect of pregnancy on readiness is not easy to measure because readiness itself is a "complex equation consisting of numerous interacting variables in which women (hence pregnancy) represent but one component of the people variable" (23:51).

As with readiness and absenteeism, it is also difficult to draw specific conclusions about pregnancy and its effect on attrition because, as Hoiberg and Ernst pointed out, several factors have caused attrition to decrease (i.e., policy changes, military pay and benefits, occupational specialties, etc.) (11). Therefore, very few conclusions can be drawn about pregnancy and its effects on readiness.

Although both the Navy and Army have conducted some studies, this review did not find any major Air Force investigations of the pregnancy issue, somewhat surprising since the Air Force contains the highest percentage of women in the services (22:25). The review did find, however, the issue of pregnancy related to deployment contained within the Organizational Assessment Study (OAS) conducted by the Air Force Special Study Team. The OAS concluded that pregnancy has an impact on deployment (36:7-8). Consequently, the impact of pregnancy on work centers with deployment taskings can be severe depending on the number of women assigned to the work center.

DOD Pregnancy Policy. From the time women first began entering the military, the policy for dealing with pregnant military women has been mandatory discharge (11:267). However, in the early 1970s the constitutionality of this policy was challenged and the Supreme Court ruled against the mandatory discharge policy (24:1-2). In April 1975 an optional discharge policy was implemented DOD-wide. The policy stated that as long as the pregnant military woman continued to perform her job in a satisfactory manner she was not required to leave the service (24:2). In addition, the pregnant military member could request separation or remain on active duty both during pregnancy and after childbirth.

Air Force Pregnancy Policies. In response to this new DOD policy, each service developed additional regulations addressing pregnant military members' health care, work limitations, and assignment procedures. The Air Force responded with additions to applicable Air Force Regulations (AFRs): 1) AFR 160-12, "Medical Service Professional Policies and Procedures," 2) AFR 36-20, "Officer Assignments," 3) AFR 39-11, "Airman Assignments," 4) AFR 35-59, "Dependent Care Responsibilities PA)," and 5) AFR 55-15, "Unit Combat Readiness Reporting."

AFR 160-12, "Medical Service Professional Policies and Procedures," states that a pregnant military member is not excluded from duties solely because of a potential for exposure to occupational hazards or toxic substances. Based on an analysis of her work environment, the attending physician drafts an Air Force Form 422, "Physical Profile Serial Report." In the report the physician may change her physical profile to exclude such tasks as ladder climbing until four weeks after the member's expected date of delivery. The regulation also states that after a normal childbirth the member may be granted up to 30 days of convalescent leave by her unit commander upon recommendation by the attending physician (7:13-16).

With regards to reassignment, AFRs 36-20 and 39-11 state that a pregnant military woman will not be reassigned to another location during the pregnancy unless she is

serving in the CONUS and is in a mandatory move status (e.g., school graduate). Moves of this type may occur only if the member has not entered her seventh month of pregnancy or is projected to an overseas or isolated location (8:67; 5:44). AFR 35-59, "Dependent Care Responsibilities," provides for post-delivery deferment from reassignment to overseas locations when tour length is less than 15 months or where dependents are not allowed to accompany the military member. The post-partum military officer is eligible for reassignment of this type 12 months after her expected date of delivery (8:67). Female airmen are eligible for reassignments of this type six months after delivery has occurred (5:44).

AFRs 36-20 and 39-11 also state that if an airman or officer is serving overseas at the time childbirth is expected, and the child is to be placed up for adoption, these women are returned to the CONUS to prevent possible problems of citizenship for the child. If an officer or airman becomes pregnant while serving in an isolated area where adequate obstetric care is not available, the pregnant member may be curtailed before completing the 24th week of pregnancy consistent with the attending physician's recommendation (8:44; 5:67).

Although Air Force medical and assignment regulations have been developed, regulations dealing with the ability of pregnant servicewomen to mobilize have not. When a

pregnant military member receives a physical profile change (Air Force Form 422) from her attending physician, a copy is sent to the Consolidated Base Personnel Office (CBPO). CBPO personnel update the unit availability roster in accordance with AFR 55-15, "Unit Combat Readiness Reporting." This update, a code 41, does nothing more than identify the woman as being a pregnant military member. It is at the pregnant member's unit commander's discretion as to whether or not the woman will mobilize should the need arise.

A Conceptual Framework

Most of the studies reviewed have been strictly empirical and have not attempted to consider pregnancy from any social or psychological framework. Most studies have simply gathered data to aid in model development or policy decisions. A good conceptual framework can be very useful in identifying major factors to be addressed and how such factors interact. Terence R. Mitchell's model for understanding the behavior of groups in organizations provides the framework for the investigative questions of this thesis.

Mitchell describes group behavior in terms of inputs, processes and outputs (20:180-200). Inputs consist of individual differences and situational factors, which affect both group structure and group processes. Processes operate within the group, including decision

making, communication, leadership, and conflict. Outputs are group behaviors and consequences of those behaviors, such as attitudes and performance. Outputs can be viewed as effects on individuals (attitudes and perceptions), effects on the work group's environment (productivity), and effects on the group itself (norms, interaction patterns). Mitchell contends that these outputs then, in turn, become inputs to the work group process (20:180). A pictorial representation of Mitchell's framework is shown in Figure 1.

Individual differences, or personal characteristics of group members, impact every group. Factors such as age, sex, attitudes, and personal experience can affect how the group reacts to an individual member. When combined with the characteristics of other members, the

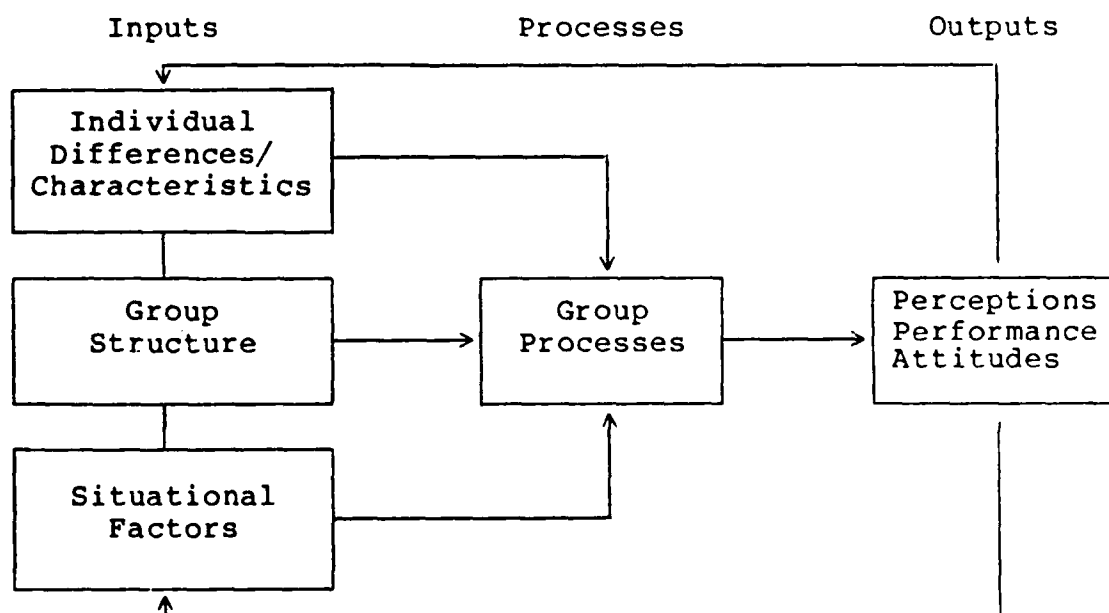


Figure 1. Mitchell's Framework for Understanding Group Behavior in Organizations

sum effect influences group behavior. The relationship of the attributes may be of greater consequence to the group's action than each characteristic taken separately (28:154-155).

Situational factors are variables that include the nature of the task, group location, and physical aspects of group functioning. According to Mitchell, certain situational factors can be controlled by the organization. The impact of situational factors on group performance is well illustrated by examining the nature of the task. According to Shaw, there are two types of tasks a group may perform - additive tasks or disjunctive tasks (28:160). Additive tasks are those whose outcomes result from the combination of individual products or talents; disjunctive tasks are those whose outcome depends upon at least one person performing the task (28:160). If the task is additive, more people work to accomplish the task. As a result, the group's output (performance) will be greater (28:160-161). If the task is disjunctive, the group's performance is determined by the most competent member in the group. On the other hand, if the task is additive, everyone in the group must accomplish the task. As a result, group performance is dependent on the performance of the least competent member. As the size of the group increases, chances of having a group member who cannot complete the task increases as well. Group efficiency

increases as the size of the group increases when the task is additive. Similarly, when group size decreases, group efficiency decreases as well (28:162).

Both individual characteristics and situational factors directly influence the third input in Mitchell's model, group structure (20:190-199). The principle variables that characterize group structure are size of the group, status, roles, norms, and cohesion. Group size is nothing more than the number of persons in a work group (28:155). As simple as it may seem, group size has both positive and negative consequences that affect the group process (28:156). By increasing a group's size, the range of abilities and skills available to the group increases. The added resources in a larger group help in the problem solving effectiveness of the group. In addition, as group size increases organizational problems become more difficult to manage (28:156). Chances are that a greater number of interpersonal relationships and smaller subgroups will form as group size increases. As a result, the potential for conflict will also rise. As size increases there is a decrease in the overall amount of participation in the group. Fewer members choose to participate. Additionally, as the size of the group increases the demands on the leader of the group become greater. There is also considerable evidence to support the conclusion that members of larger groups are less

attracted to the group and generally less satisfied than are members of smaller groups. Likewise, the larger the group the more difficult it is to arrive at a consensus. With regards to performance of the group, added resources contribute to better performance. However, additional resources also increase the likelihood of organizational problems and stifling of members' contributions to the group (28:155-160).

Another important group structure factor is cohesiveness of the group. Cohesiveness is defined by Donnelly, Gibson, and Ivancevich as the "attraction of members to the group and the strength of forces on the individual member to remain active in the group and resist leaving it" (10:366). Cohesiveness impacts group processes. Members of cohesive groups are usually more satisfied with their groups, conform more readily to group norms, and try harder to achieve group goals (10:369). Those groups possessing poor cohesiveness often have difficulty achieving goals and the outcomes of groups tend to be less than expected (10:369). As a result, cohesiveness affects the outcomes of the group process.

Mitchell identifies these factors (individual differences, situational factors, and group structure) as the primary inputs to group processes. The functions of communication, leadership, group decision making, power, and conflict are based on these factors. The interaction

results in the outcomes for a particular group. In examining how the pregnant worker is perceived by the work group, Mitchell's framework has utility. The outcome being investigated in this thesis is the work group's perception of pregnancy. Using Mitchell's framework, this investigation considers this output by examining relevant inputs. Therefore, based on Mitchell and the review of the literature, this thesis examines individual differences, group structure characteristics, and situational factors in relation to the perceptions of pregnancy in enlisted work groups.

III. Method

This chapter describes the database and methods used in this investigation. The survey effort which produced the database was planned, designed and executed by Systems Research and Applications Corporation (SRAC) and the National Opinion Research Center (NORC) of the University of Chicago. Aspects of the database will be described. Variables extracted from the database for use in this investigation will be discussed. Finally, analyses conducted will be identified.

Population

The population addressed in the Air Force special study was defined as all enlisted persons who were members of the Air Force as of August 1984. The study did not include students or permanent party personnel assigned to small bases of less than 100 people, geographically separated units, or non-Air Force units (36:4-2).

Sample

Survey participants were selected using a two-stage random sampling technique. The first stage determined the 30 Air Force bases (out of a possible 120) worldwide where the survey would be given. Of the 30 bases selected, 22 were located overseas, 7 were located stateside, and 1 was located in Alaska. The second stage used a probability

selection procedure to determine which enlisted members at each base would complete the survey (36:4-7).

About 490 enlisted members at each base completed the survey. Females were sampled at a rate two times that of males to insure valid data from female members. For purposes of this thesis, male-female responses in variables were compared to determine whether weighted or nonweighted data should be used. Nonweighted data were used throughout because 1) no significant differences were obtained between male and females that warranted weighting, and 2) statistical methods employed were not affected by the over-sampling of females. The percentage sampled in each enlisted Air Force Specialty Code (AFSC) was about equal to the percentage of each AFSC in the enlisted population. Approximately 83 percent of all individuals cooperated in this voluntary survey (36:4-2). This response rate is well within acceptable standards of high quality survey research. Sample size used in this thesis effort was 11,847.

Questionnaire

The questionnaire was designed specifically for the Air Force Organizational Assessment Study (OAS). NORC pretested the survey and then administered it in group settings at the 30 bases previously mentioned. The questionnaire included closed-ended questions designed

to provide data on the organizational effects of women in the Air Force (36:3-1-3-11).

Enlisted personnel were asked about actual work group conditions and behaviors relative to the work period just before the questionnaire was administered. Responding to hypothetical situations was not a major part of this study. As such, the study yielded first-hand reports on current work group situations (36:3-2).

All respondents answered a 148-item questionnaire with each person working alone. Individuals who supervised at least one or more supervisors completed an additional 21 questions. On average, it took one hour for participants to complete the questionnaire and fill in the optically scanned answer sheet (36:3-2-3-6). Upon completion, each group of answer sheets was batched, coded by base, and sent to a scanning machine for compilation (36:3-19).

Variables

To examine the question of work group perception of the pregnant worker and to attempt to answer the questions posed by this thesis research, key variables were identified in the OAS questionnaire. These variables were selected based on analysis of the questionnaire items in relation to the investigative questions. Pretesting and design of the OAS questionnaire insured acceptable survey characteristics (36:3-8). Items from the OAS questionnaire used in this study are contained in Appendix A.

Dependent Variables. The dependent variables in this study were measures of how work group members perceived pregnancy. Measurement was accomplished by survey items 111 and 83. Item 111 asked the respondent to rate pregnancy as either a very serious problem, serious problem, moderate problem, slight problem, or no problem at all for the work group to which the enlisted member belonged. For the research reported here, responses were grouped into problem (including very serious, serious, moderate, and slight), or no problem categories. Item 83 asked respondents why they felt that women don't carry their own weight on the job if such had been indicated on a previous question. Seventeen possible responses were listed. Responses K and L stated that it was because women are pregnant (still on the job) and women are pregnant (in the hospital) or on maternity leave.

Independent Variables. The independent variables were selected from factors suggested by Mitchell's framework - individual differences, characteristics of group structure, and situational factors.

Individual Differences. Individual differences included sex, age, personal experience with pregnancy, and length of time assigned to the work group. Sex was addressed in item 130, age in item 132, and personal experience with pregnancy in items 137, 141, and 142. Survey respondents who indicated they were either presently

or formerly married, or had children less than eighteen years of age, were considered to have had experienced pregnancy. In addition, those who indicated they or their spouses were currently pregnant were considered to have had experience with pregnancy. Those who had no children or were never married were assumed to have never had experience with pregnancy. Length of time assigned to the work group was addressed in item 8. Responses were regrouped into three categories for analyses: 1) less than 1 year, 2) 1 to 2 years, and 3) more than 2 years.

Characteristics of Group Structure. The characteristics of group structure investigated included size of work group, group cohesion and morale, supervisor ability and behavior, and group performance.

Size of the work group was addressed in items 7 and 12. Item 12 asked how many comprised the respondent's work group, while item 7 asked if more than 20 belonged to the respondent's work group. Responses to item 12 were regrouped into six size categories for analyses: 1) 1 to 3 people, 2) 4 to 6 people, 3) 7 to 12 people, 4) 13 to 20 people, 5) 21 to 40 people, and 6) more than 40 people.

Group cohesion and morale was addressed in three items - 37, 39, and 104. Items 37 and 39 asked the respondent to either strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with these statements:

item 37, "People in my work group work well together," and item 39, "There is a friendly atmosphere in my work group."

For the purpose of analyses, strongly agree and agree responses were grouped together and respondents who replied in this manner were considered to belong to cohesive groups. Responses indicating neither agree nor disagree were ignored, and disagree and strongly disagree responses were grouped together. Those responding in this manner were assumed to belong to less cohesive groups.

Item 104 addressed the issue of morale in the work group. Respondents were asked to rate how serious they felt the problem of low morale was in the work group on a scale from a very serious problem to no problem at all. Those responding that low morale was a very serious problem, serious problem, moderate problem, or slight problem were grouped together and considered to belong to a work group with low morale. All others were considered to belong to groups without low morale problems.

Supervisor abilities and behavior were addressed in items 66 through 78, and in item 95. Items 66 through 78 asked respondents to strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with statements about their supervisor's abilities and performance in carrying out responsibilities. Responses to these questions were summed and a supervision factor ranging from 6 to 50 was calculated. A supervision factor

of less than 25 was indicative of good supervision; a factor of 25 or more was indicative of poorer supervision.

Item 95 asked the respondent to rate whether or not supervision is a problem for the work group to which the respondent is assigned on a scale from very serious problem to no problem at all. Very serious problem, serious problem, moderately serious problem, and slightly serious problem responses were grouped together. It was assumed that those who responded in this manner belonged to work groups in which supervision is a problem. All others were considered to belong to work groups where supervision is not a problem.

Group performance was addressed in survey items 38, 40, and 42, to which the respondent was asked to strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree. Neither agree nor disagree responses were disregarded, and the remaining responses to these questions were summed and assigned a calculated performance factor of between 3 and 15. A performance factor of less than 10 was indicative of perceived good group performance. Factors of 10 or more were considered to indicate poorly perceived group performance.

Situational Factors. Situational factors included the physical location of the respondent (overseas versus CONUS and traditional job location versus non-

traditional job location), the percentage of women in the work group, and the amount of strength required on the job.

Physical location of the work group (overseas versus CONUS) was determined by a code assigned to the batched surveys following survey completion. Bases were regrouped by overseas versus CONUS locations. Alaskan respondents were grouped with all other overseas respondents.

Traditional versus nontraditional job locations were determined by responses to items 51 through 57. Each of these survey items asked respondents if they had worked in particular environments the previous work week. Possible responses included environments such as the flight line, an airplane, a hazardous area, a warehouse/hangar/shop, an excessively cold or warm area, out-of-doors, and an office environment. Response values were added and a job location factor computed. Factors ranged from 6 to 12, with a response of 6 indicating the respondent worked in all nontraditional locations, and a response of 12 indicating the respondent did not work in any nontraditional locations.

The percentage of women in the work group variable was calculated using responses to items 12 and 13. Item 12 asked for the total number of people in the respondent's work group. Item 13 asked the respondent the total number of women in the work group. By dividing the number of women in the work group by the number of people in the work

group, the percentage of women in the work group was found. Once the percentage factor was calculated, percentages were regrouped into three categories: 1) 0 to 10 percent women, 2) 10 to 25 percent women, and 3) more than 25 percent women.

Finally, the variable indicating strength required to complete the assigned tasks of the work group was addressed in item 35. The survey question asked the respondent to strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with the statement "Physical strength is necessary to get the work done in my work group." Responses were regrouped into two categories: 1) those who believed strength was necessary to accomplish the work group's tasks (strongly agree and agree), and 2) those who did not believe strength was necessary (disagree and strongly disagree). Neither agree nor disagree responses were disregarded. It was assumed that respondents who indicated that strength was necessary to accomplish the work group's tasks were assigned to nontraditional job locations. Those who disagreed were assumed to be assigned to traditional job locations.

Data Analyses

Initially, the means and frequencies on all variables were computed to insure the accuracy of the study data obtained from the NORC database. Analysis confirmed the accuracy of the data. Some variables were measured at

the nominal level, others at the interval level. Where independent variables were nominal, chi-square tests of association were employed to test for independence. For interval level data, t-tests were conducted. Analyses were planned to be primarily descriptive in nature rather than inferential. The plan of analyses was to examine the relationship between the perception of pregnancy and the associated variables, with each relationship being examined separately rather than in toto. All analyses were computed on the Digital Equipment Corporation VAX 11/785 computer using the Statistical Package for the Social Sciences (SPSS).

IV. Results

This chapter reports the findings of the data analyses. These findings provide the basis for answering the investigative questions discussed in the Chapter V. Overall results for each item, including frequencies, means, and standard deviations, are provided in Appendix B.

Investigative Question 1

How is pregnancy perceived in enlisted work groups?
Is it perceived to be a problem?

Three dependent variables were examined to answer this question. The most direct answer was item 111. As shown in Table 1, 3.6 percent of the respondents viewed pregnancy as either a very serious or serious problem, 4.1 percent saw it as a moderate problem, and 7.8 percent felt it was a slight problem for the work group. Most respondents (84.5 percent) did not feel pregnancy was a problem. Only 15.5 percent of respondents felt pregnancy was a problem for the work group.

Item 83 asked the respondent why they felt that women don't carry their own weight (if the respondent had answered positively to a previous item which addressed this issue). Two of the possible responses included "They are pregnant (still on the job)" and "They are pregnant (in

TABLE 1
The Perception of Pregnancy

Response	Number	Percent
Very serious problem	215	1.8
Serious problem	209	1.8
Moderate problem	480	4.1
Slight problem	915	7.8
No problem	9,954	84.5
Total	11,773	100.0

the hospital or on maternity leave)." Of the 11,847 respondents, 2,275 (19.2 percent) indicated that women don't carry their own weight on the job. Overall, only 1.9 percent indicated the reason as being they are pregnant on the job. In addition, 18.7 percent indicated women don't carry their own weight on the job because they are pregnant in the hospital or on maternity leave. Initial analysis of this variable showed little variation across the independent variables. Therefore, this variable was dropped from further analyses. Thus, item 111 was the principle dependent variable used, with additional planned analyses accomplished using item 83-K.

Investigative Question 2

Do individual differences (sex, age, personal experience with pregnancy, and length of time assigned to work group) among group members affect how pregnancy is perceived in the enlisted work group?

This question was examined by comparing six individual difference variables with how the respondent answered item 111, "Is pregnancy a problem for your work group?" and item 83, "Pregnant women don't carry their own weight."

Sex. Of the 11,740 respondents, 9,288 (79.1 percent) were males. Of these males 1,445 (15.65 percent) viewed pregnancy as a problem for the work group. Of the 2,453 female respondents, 366 (14.9 percent) viewed pregnancy as a problem for the work group. A chi-square test of independence indicated no significant difference between the two groups' responses ($\chi^2 = .54$, $df = 1$, $p = .46$). Similarly, no significant difference was found between male and female responses regarding women not carrying their own weight on the job due to pregnancy.

Age. Based on responses to item 132, respondents were divided into five age groups: 18 to 21 years old (11.3 percent), 22 to 29 years old (56.2 percent), 30 to 35 years old (18.0 percent), 36 to 40 years old (10.3 percent), and more than 40 years old (4.1 percent). A crosstabulation between item 111 and age was made and a chi-square test was conducted to determine if differences existed among

age groups regarding how pregnant servicewomen are perceived. Although no significant difference was noted ($\chi^2 = 8.44$, $df = 4$, $p = .077$), the data suggests that as the respondent's age increases, pregnancy may be perceived to be somewhat more of a problem. Results are shown in Table 2. Likewise, no significant difference was noted when age group was crosstabulated with item 83, "Pregnant women don't carry their own weight" ($\chi^2 = 4.6$, $df = 4$, $p = .33$).

TABLE 2
The Perception of Pregnancy
and Respondent's Age

Response	Respondent's Age				
	18-21	22-29	30-35	36-40	Over 40
Very serious problem	1.8% (24)	1.5% (100)	2.1% (44)	2.5% (30)	2.7% (13)
Serious problem	1.8% (24)	1.6% (107)	1.4% (30)	2.8% (34)	2.5% (12)
Moderate problem	4.2% (55)	4.0% (266)	4.1% (87)	4.5% (54)	3.5% (17)
Slight problem	7.7% (102)	7.8% (513)	7.4% (156)	7.9% (96)	9.2% (45)
No problem	84.5% (1119)	85.1% (5607)	85.0% (1796)	82.3% (997)	82.1% (398)

Personal Experience with Pregnancy. This independent variable was addressed in three survey questions: item 137, "What is your current marital status?", item 141, "How many children less than 18 years old live with you?", and item 142, "Are you or your spouse currently pregnant?"

The responses to item 137 were divided into three marital categories: single, married, and other than single or married (i.e., divorced, separated, widowed). A cross-tabulation with item 111 was performed. A chi-square test of independence was conducted and no significant difference among marital status categories with regards to how pregnancy is perceived was noted ($\chi^2 = 1.93$, $df = 2$, $p = .38$). In addition to being crosstabulated with item 111, marital status was also crosstabulated with item 83, "Pregnant women don't carry their own weight." Likewise, no significant difference was noted ($\chi^2 = 3.54$, $df = 2$, $p = .17$).

For item 141, "How many children less than 18 years old live with you?", a two-tailed t-test indicated no differences in perception of pregnancy ($t = .83$, $df = 2428$, $p = .405$) or the perception of pregnancy on the job and not carrying weight on the job ($t = .16$, $df = 280$, $p = .871$).

Finally, item 142, "Are you or your spouse currently pregnant?" was examined. The results of this survey question are shown in Table 3. A total of 777 (6.6 percent) respondents were experiencing pregnancy at the

time the survey was conducted. Of these, 180 active duty servicewomen were pregnant and 597 servicemen had spouses who were pregnant. When crosstabulated with item 111, 23 percent of those who were experiencing pregnancy felt pregnancy was a problem, compared with 14.9 percent of those who were not experiencing pregnancy, a significant difference ($\chi^2 = 36.43$, $df = 2$, $p < .0001$). When cross-tabulated with item 83, "Pregnant on job and carry own weight," 80.51 percent of those experiencing pregnancy believed pregnant servicewomen carried their own weight on the job, a different perception than those not experiencing pregnancy ($\chi^2 = 19.62$, $df = 2$, $p = .0001$).

TABLE 3

The Perception of Pregnancy and
Personal Experience with Pregnancy

Response	Personal Experience	
	Pregnant Now	Not Pregnant Now
Very serious problem	2.7% (21)	1.7% (148)
Serious problem	3.2% (25)	1.5% (133)
Moderate problem	3.7% (29)	4.1% (356)
Slight problem	13.4% (104)	7.6% (655)
No problem	77.0% (598)	85.1% (7373)

Length of Time Assigned to Work Group. Responses indicating length of time with work group were divided into three categories: 1) less than 1 year (46.4 percent), 2) 1 to 2 years (28.3 percent), and 3) more than 2 years (25.3 percent). The chi-square test indicated a significant difference among the groups in how pregnancy is perceived in relation to the length of time assigned to a work group ($\chi^2 = 21.72$, $df = 2$, $p < .0001$). Percentages are shown in Table 4. The data slightly indicated that the longer one is assigned to a work group, the more pregnancy may be perceived as a problem. Of 2,965 respondents in the "more than two years" category, 525 (17.7 percent) viewed pregnancy as a problem. Of the 8,770 with less than two years in the assigned work group, 14.72 percent perceived pregnancy as a problem. When crosstabulated with item 83, "Pregnancy on job and carry own weight," no significant difference was noted ($\chi^2 = 2.1$, $df = 2$, $p = .35$).

Investigative Question 3

Do the characteristics of group structure (size of work group, group cohesion and morale, supervisor ability and behavior, and group performance) affect the perception of pregnancy in the enlisted work group?

This item was addressed by examining the respondents' answers to several group structure variables in relation to the dependent variables. The results for each characteristic of group structure are described below:

TABLE 4

The Perception of Pregnancy and Length
of Time Assigned to Work Group

Response	Length of Time in Work Group		
	Less than 1 year	1 to 2 years	More than 2 years
Very serious problem	1.5% (80)	1.8% (60)	2.5% (75)
Serious problem	1.4% (77)	1.9% (64)	2.3% (68)
Moderate problem	3.6% (198)	4.3% (144)	4.6% (138)
Slight problem	7.4% (405)	8.0% (264)	8.3% (244)
No problem	86.1% (4690)	84.0% (2789)	82.3% (2440)

Size of Work Group. This independent variable was measured by two survey question: item 7, "Does the work group have more than 20 people assigned?", and item 12, "How many people are in your work group?"

The responses to item 12 were divided into six major categories: 1) 1 to 3 people, 2) 4 to 6 people, 3) 7 to 12 people, 4) 13 to 20 people, 5) 21 to 40 people, and 6) more than 40 people. These responses were crosstabulated with items 111 and 83. With regards to item 111, "Is pregnancy a problem for your work group?", a significant difference among sizes of work group was noted ($\chi^2 = 44.49$, $df = 5$,

$p > .0001$). Percentages by group are shown in Table 5. It appears that as the size of the group increases, pregnancy is viewed as more of a problem. Similar results were also obtained when item 83, "Pregnant women don't carry their own weight," was examined ($\chi^2 = 13.09$, $df = 5$, $p = .0227$). The data tended to indicate that as the size of the respondent's group increased, pregnant women were not perceived to carry their own weight on the job.

TABLE 5
The Perception of Pregnancy
and Size of Work Group

Response	Number of People in Work Group					
	1-3	4-6	7-12	13-20	21-40	Over 40
Very serious problem	1.8% (22)	2.1% (64)	1.6% (62)	1.4% (36)	2.7% (20)	3.9% (10)
Serious problem	1.8% (22)	1.3% (40)	1.9% (74)	1.9% (49)	2.5% (19)	2.0% (5)
Moderate problem	3.7% (44)	3.7% (110)	4.2% (165)	3.6% (93)	7.0% (53)	4.7% (12)
Slight problem	5.0% (60)	7.0% (210)	7.6% (299)	9.5% (247)	9.8% (74)	9.1% (23)
No problem	87.7% (1052)	85.9% (2587)	84.7% (3335)	83.6% (2163)	78.0% (586)	80.3% (203)

Item 7, "Does your work group have more than 20 people?" was crosstabulated with items 111 and 83 to check the results obtained in the previous correlation. Of the 1,279 respondents with more than 20 people in their work groups, 232 (18.14 percent) indicated pregnancy is a problem for the group. A chi-square test indicated a significant difference ($\chi^2 = 7.62$, $df = 1$, $p = .005$) between these two groups' perceptions. The data tends to indicate that those assigned to large groups (more than 20 people) perceive pregnancy as more of a problem than do those with less than 20 people assigned. No significant difference was noted for item 83 ($\chi^2 = .053$, $df = 1$, $p = .81$).

Group Cohesion. This independent variable was addressed using two survey items: item 37, "People in my work group work well together," and item 39, "There is a friendly atmosphere in my work group."

Item 37 responses were grouped into agree, neither, and disagree. "Neither" responses were disregarded. A total of 8,352 (86.5 percent) of the respondents believed the group worked well together. A crosstabulation of item 39 and item 111 was conducted and a chi-square test indicated a significant difference ($\chi^2 = 10.73$, $df = 1$, $p = .0011$) between "cohesive" and "noncohesive" groups, as shown in Table 6. In the "cohesive" group 14.3 percent perceived pregnancy as a problem, compared with 17.9

TABLE 6
The Perception of Pregnancy and Cohesiveness

Response	Work Well Together	
	Yes (Cohesive)	No (Noncohesive)
Very serious problem	1.8% (153)	2.0% (26)
Serious problem	1.5% (128)	2.4% (32)
Moderate problem	3.6% (299)	4.2% (55)
Slight problem	7.4% (620)	9.3% (120)
No problem	85.7% (7152)	82.1% (1070)

percent of the "noncohesive" group. The data tends to indicate that the better a group works together (more cohesive), the less pregnancy is perceived as a problem.

Item 37 was also crosstabulated with item 83, "Pregnant on the job and carry own weight," and significant results were also obtained ($\chi^2 = 4.80$, $df = 1$, $p = .02$). Of the 1,715 who responded to the item, 1,258 (73.35 percent) agreed the work group worked well together. Of those in this group, 1,150 (91.41 percent) believed pregnant women carry their own weight on the job. Of the respondents who did not agree the group worked well together, 401 (87.7 percent) agreed pregnant women carry

their own weight on the job. The data tends to indicate that the better a group works together, the more pregnant women are perceived to carry their own weight on the job.

Crosstabulations between item 39, "There is a friendly atmosphere in my work group," with items 111 and 83 were also completed and chi-square tests performed. Results were almost identical to those obtained when item 37 was crosstabulated with the dependent variable items. A total of 9,792 either agreed or disagreed with this statement. Of this number, 89.78 percent believed a friendly atmosphere existed in their work groups, and 85.38 percent did not believe pregnancy was a problem for the work group. Therefore, this independent variable supports the data which tends to indicate that the friendlier the group (more cohesive), the less pregnancy is perceived as a problem and the more pregnant women are perceived as carrying their own weight on the job.

As a check on these results, responses to item 104 were examined. Respondents to this item rated how serious the problem of low morale was in the work group on a scale from very serious to no problem at all. Responses were grouped into problem (very serious, serious, moderately serious, slightly serious) and no problem, and cross-tabulated with the dependent variable items 111 and 83. A t-test was used to determine if a significant difference existed between how pregnancy is perceived by those who

believed low morale is a problem and those who do not. The t-test indicated significant results ($t = 16.65$, $df = 2568$, $p < .0001$). The data suggested that those in low morale groups perceived pregnancy as more of a problem than those in groups where low morale was not perceived as a problem.

When the same item was crosstabulated with item 83, "Pregnant on job and carry own weight," there did not appear to be any significant difference between those perceiving low morale problems versus those not perceiving low morale problems and whether pregnant women carry their own weight on the job ($t = -1.17$, $df = 274$, $p = .241$).

Supervisor Ability and Behavior. This independent variable was addressed in survey item 95, "Is poor supervision a problem for your work group?", and by a supervision factor computed using the responses to items 66 through 78 (supervisor ability questions). As shown in Table 7, 54.6 percent indicated supervision is a problem for the work group when responding to item 95. Of those, 20.5 percent perceived pregnancy a problem. Of the 45.4 percent who did not perceive supervision as a problem, 9.5 percent perceived pregnancy as a problem. A chi-square test was conducted to determine if differences among perceptions existed and a significant difference was noted ($\chi^2 = 269.92$, $df = 1$, $p < .0001$). The data tends to indicate that those who perceive supervision as a problem are more likely to perceive pregnancy as more of a problem

TABLE 7

The Perception of Pregnancy and Supervision

Response	Supervisor a Problem for Work Group	
	No	Yes
Very serious problem	1.1% (58)	2.5% (157)
Serious problem	0.8% (41)	2.6% (168)
Moderate problem	2.1% (111)	5.7% (369)
Slight problem	5.5% (294)	9.7% (621)
No problem	90.6% (4835)	79.5% (5114)

to the work group than those who do not see supervision as a problem.

Item 95 was also crosstabulated with item 83, "Pregnant on job and carry own weight," and a chi-square test was performed. No significant difference was noted ($\chi^2 = .3622$, $df = 1$, $p = .54$).

To further test for this variable's relationship to the perception of pregnancy, t-tests between items 111 and 83 and the supervision factor were performed. The results of the t-tests support the results obtained in the item 95 crosstabulation ($t = -1.10$, $df = 2478$, $p = .270$) for item 111. This tends to indicate that the more a supervisor is

perceived to be a problem, the more pregnancy is perceived to be a problem. In addition, the more a supervisor is perceived to be a problem, the less pregnant women are perceived as carrying their own weight on the job ($t = -.07$, $df = 285$, $p = .944$ for item 83).

Group Performance. This independent variable was addressed in three survey items: 38, "My work group does a bad job of handling short deadlines and surprise schedule changes," 40, "My co-workers take pride in their work," and 42, "My group produces high quality work." A group performance factor was computed by adding the response for each of these items. The factor ranged from 3 to 15, with a value of 3 indicating good group performance and a value of 15 indicating poor group performance. Good group performance was perceived by 80.9 percent (factor ≤ 9); less than good group performance was perceived by 19.1 percent (factor > 9). With regards to how pregnancy is perceived, the t-test indicated a significant difference ($t = -2.10$, $df = 2504$, $p = .036$) between those who perceived good group performance and those who did not. This difference, while statistically significant, may not represent a meaningful difference. Percentages associated with this analysis are shown in Table 8.

TABLE 8
The Perception of Pregnancy and
Perceived Group Performance

Response	Perceived Group Performance	
	Good (factor \leq 9)	Other than good (factor $>$ 9)
Very serious problem	1.8% (172)	1.9% (43)
Serious problem	1.7% (165)	1.9% (43)
Moderate problem	4.0% (378)	4.5% (101)
Slight problem	7.6% (719)	8.6% (194)
No problem	84.9% (8062)	83.1% (2247)

In addition, the group performance factor was cross-tabulated with dependent variable item 83, "Pregnant on job and carry own weight." Of those perceiving good group performance, 9.7 percent indicated pregnant women do not carry their own weight on the job. Of those indicating poorer group performance, 10.3 percent felt pregnant women do not carry their own weight on the job. T-test results indicated no significant difference among these two groups ($t = 1.51$, $df = 284$, $p = .131$).

Investigative Question 4

Do situational factors (physical location - overseas versus CONUS and traditional job locations versus nontraditional job locations, percentage of women, and amount of strength required on the job) affect the perception of pregnancy in the United States Air Force enlisted work group?

This question was addressed by examining respondents' answers to ten independent variable items.

Physical Location. The physical location factor included both overseas versus CONUS and traditional versus nontraditional job locations.

Overseas versus CONUS. This independent variable was addressed by the base identification assigned to each survey. Bases were grouped into overseas and CONUS locations. Alaska was considered an overseas location. The grouped locations were crosstabulated with dependent variable items 111 and 83 and chi-square tests were performed. No difference existed with regards to how those at overseas locations versus those at CONUS locations perceived pregnancy ($\chi^2 = .72$, $df = 4$, $p = .95$). Of those at overseas locations, 15.45 percent perceived pregnancy as a problem, as did 15.45 percent of those at CONUS locations. Likewise, no difference existed between how overseas versus CONUS participants perceived how pregnant women carry their own weight on the job.

Traditional versus Nontraditional. This independent variable was addressed in survey items 13 through 19. In each item respondents were asked to identify whether or not they worked in locations such as on the flight line, in a hangar, in a hazardous area, in a warehouse, in excessively warm or cold areas, out-of-doors, or in an office. A job factor was computed by adding the participant's responses to each item. Factors between 6 and 12 were computed, with factors of 6 indicating the respondent worked in all nontraditional job locations, and factors of 12 indicating the respondent didn't work in any nontraditional job location. The factor was then crosstabulated with the dependent variable items 111 and 83 and t-tests were performed. Regarding how pregnancy is perceived, the t-test results ($t = 4.42$, $df = 2435$, $p < .0001$) suggest a difference between how pregnancy is perceived by those working in predominantly nontraditional job locations (flight line, hangar, warehouse, excessively warm or cold areas, and out-of-doors) versus those in traditional job locations. Of those working in predominantly nontraditional job locations, 16.87 percent perceived pregnancy as a problem to the work group whereas 14.69 percent in traditional job locations perceived pregnancy as a problem. The data suggests that those working in nontraditional job locations perceived pregnancy as more of a problem than those working in traditional

job locations, although not necessarily by a meaningful difference.

The job factor was also crosstabulated with dependent variable item 83, "Pregnant on job and carry own weight," and a t-test was performed. No significant difference between the perceptions of the two groups was noted ($t = .26$, $df = 272$, $p = .79$).

Percentage of Women in Work Group. This independent variable was computed by dividing the number of women in the respondent's assigned work group (item 12) by the total number in the work group (item 13). After the percentages of women were obtained, they were grouped into three categories: 1) 0 to 10 percent women, 2) 10 to 25 percent women, and 3) more than 25 percent women. The grouped categories were then crosstabulated with dependent variable items 111 and 83 and chi-square tests were performed.

As shown in Table 9, 6,940 participants worked in groups with women. Of these, 1,385 (20 percent) worked in groups with 10 percent or less women, 2,874 (41.4 percent) in groups with 10 to 25 percent women, and 2,681 (38.6 percent) in groups with more than 25 percent women. Of those in groups with less than 10 percent women, 221 (15.9 percent) indicated pregnancy is a problem. Of those working in groups with 10 to 25 percent women, 502 (17.4 percent) indicated pregnancy is a problem. Of those working in groups with more than 25 percent women, 536 (20

percent) perceived pregnancy as a problem. The chi-square test indicated a significant difference between these groups and how pregnancy is perceived ($\chi^2 = 11.52$, $df = 2$, $p = .0032$). The data tends to suggest that the higher the percentage of women in the work group, the more pregnancy is perceived to be a problem.

TABLE 9

The Perception of Pregnancy and
Percentage of Women in Work Group

Response	Percent of Women in Work Group		
	0 to 10	10 to 25	Over 25
Very serious problem	1.7% (24)	1.8% (52)	1.1% (30)
Serious problem	1.9% (26)	1.7% (49)	2.2% (58)
Moderate problem	4.4% (61)	4.7% (136)	4.8% (129)
Slight problem	7.9% (110)	9.2% (265)	11.9% (319)
No problem	84.1% (1164)	82.6% (2372)	80.0% (2145)

When crosstabulated with dependent variable item 83, "Pregnant on job and carry own weight," the percentage of women in the work group did not appear to make a difference. A chi-square test was conducted and no significant difference was noted ($\chi^2 = 4.41$, $df = 2$, $p = .12$).

Strength Required on the Job. This independent variable was addressed in survey item 35, "Physical strength is necessary to get the work done in my group."

Responses to this item were grouped into three categories: agree, disagree, and neither. "Neither" responses were disregarded. Of those responding 4,697 (48.29 percent) believed strength was necessary to accomplish the work group's tasks. As shown in Table 10, 822 of these (17.5 percent) indicated pregnancy is a problem for the work group. Of the 5,029 who did not indicate strength was necessary, 677 (13.46 percent) indicated pregnancy is a problem for the work group. A chi-square test was conducted to determine if a difference existed between these groups and a significant difference was noted ($\chi^2 = 30.07$, $df = 1$, $p < .0001$). The data suggests that those who indicated strength was necessary to accomplish the work group's tasks perceive pregnancy as more of a problem than those who do not require strength to get the group's task done. When this variable was crosstabulated with item 83 (pregnant on job and carry

own weight), the chi-square test indicated no significant difference ($\chi^2 = 1.73$, $df = 1$, $p = .19$).

TABLE 10
The Perception of Pregnancy and
Strength Required on the Job

Response	Strength Required on Job	
	No	Yes
Very serious problem	1.0% (54)	2.9% (136)
Serious problem	1.2% (59)	2.4% (112)
Moderate problem	3.6% (179)	4.4% (209)
Slight problem	7.7% (385)	7.8 (365)
No problem	86.5% (4352)	82.5% (3875)

V. Discussion

This chapter discusses how enlisted work group members perceive pregnant servicewomen. It addresses the results obtained through data analyses and answers the four investigative questions. Finally, after a discussion of study limitations, recommendations are offered.

The Perception of Pregnancy

Pregnancy was perceived as a problem for work groups by 15.5 percent of the sample. Of these, less than 4 percent saw it as a serious problem, whereas almost 12 percent saw it as a moderate or slight problem. In addition, 1.9 percent of the sample indicated women do not carry their own weight on the job because they are pregnant. Likewise, 18.7 percent said women don't carry their own weight on the job because they are pregnant in the hospital or on maternity leave. The vast majority of enlisted personnel in the work place do not appear to see pregnancy as a problem.

Although the survey results do not indicate that pregnancy is a major problem in Air Force work centers, the nature of the sample should be kept in mind. The sample was entirely composed of enlisted members and the vast majority were not supervisors. While enlisted members do not see pregnancy as a major problem, perceptions of key

supervisors and the officer corps are not part of the results reported here. Officers and supervisors may see pregnancy as more of a problem due to their concern with management of personnel resources. The important aspect of the finding reported here is that group members themselves do not see pregnancy as a big problem. Regardless, the negative perceptions associated with pregnant co-workers should not be ignored. Presently, the United States Air Force is comprised of about 11.64 percent women (1:184). However, as the number of women in the Air Force increases, supervisors and co-workers will be exposed to increasing numbers of pregnant military women. The potential exists for pregnancy to be perceived as a greater problem as more people are exposed to pregnant women in the work place.

Individual Differences and the Perception of Pregnancy

The first of the four individual differences examined was sex. No significant difference existed between how males and females perceived pregnant women or how pregnant women carried their own weight on the job.

This finding is somewhat surprising and counter-intuitive. One might expect men to see pregnancy as more of a problem than women because of a perceived, real or not, decrease in the contribution of pregnant women to work group productivity. Furthermore, the Army Study Group found that males perceive pregnant servicewomen as

receiving preferential treatment, suggesting that army men may perceive pregnant servicewomen differently than do army women (40: Sec VII, 5). The literature review and discussions with others failed to identify a reasonable hypothesis to explain the finding that male and female perceptions were alike.

The second of the four individual difference factors investigated was age. No statistically significant difference among age groups was noted. In general, 15.5 percent of those in the 18 to 21 year old age group perceived pregnancy as a problem. Of those in the over 40 age group, 17.9 percent felt the same way. This finding may be due to the fact that over a longer lifetime, older members have had more opportunity to work with pregnant women.

Of the four individual differences studied, the third, personal experience with pregnancy, produced the strongest results. Of those who were experiencing pregnancy at the time the survey was conducted (service members or spouses), 23 percent perceived pregnancy as a problem for the work group (compared to 15.5 percent of the sample who perceived pregnancy as a problem). In addition, only 80 percent of those experiencing pregnancy felt pregnant women carried their own weight on the job compared to 90.1 percent of the sample who felt the same way.

One possible reason why different perceptions exist between those currently experiencing pregnancy and those not may be the salience of the pregnant state. Events not experienced or events recalled from past experiences may be filtered by intervening perceptions and hence viewed moderately. Also, the pregnant worker or husband of a pregnant spouse may see pregnancy as a problem for himself or herself, limiting the contribution he or she makes to the work group. The work group member, on the other hand, may not see it this way.

The last individual difference studied was the length of time assigned to the work group. This individual difference also produced statistically significant results. The data tended to indicate that the longer one is assigned to a work group, the more pregnancy is perceived as a problem. For example, 13.9 percent of those in work groups less than one year perceived pregnancy as a problem, while 17.3 percent of those assigned to work groups for more than two years perceived pregnancy the same way. The longer one is assigned to a work group the more of an opportunity one has to work with a pregnant woman. This experience may cause perceptions to change.

Although not investigated here, one might hypothesize that the perception of a problem caused by a pregnant woman may be at least partly a function of her amount of time in the work group. The longer one is assigned to a job (work

group), the more opportunity one has to become proficient. The individual who possesses more abilities, knowledge and information makes a greater contribution to a work group's task completion (28:189). Consequently, when an individual possessing the skills needed by the work group is unable to accomplish the tasks of the group (i.e., exempt because of medical waiver or in the hospital or on maternity leave), the group's task accomplishment may be hampered. Thus, pregnant women assigned to a work group for longer lengths of time may be perceived to cause more of a problem than those assigned for shorter periods of time.

Characteristics of Group Structure and the Perception of Pregnancy

Four characteristics of group structure were analyzed. They included size of work group, group cohesion and morale, supervisor ability and behavior, and group performance.

The analysis of work group size resulted in two findings. As the size of the group increased to more than 20 people, pregnancy was perceived to be more of a problem. In addition, as the size of the group increased, the less pregnant women were perceived to carry their own weight on the job.

Pregnancy may be perceived to be more of a problem by members of large groups because of the nature of larger groups. For example, Mitchell states that larger groups in

general tend to be less satisfied (20:188). Likewise, Shaw contends that members of larger groups are less attracted and inherently have more tension (28:159). Larger groups may just see more things as being problems than smaller groups. The fact that members of larger groups tended to perceive pregnancy as more of a problem than smaller groups might just be a characteristic of group size. More research relative to group size would be necessary to clarify this finding.

In addition to this finding, pregnant women were also perceived to not carry their own weight on the job as much in larger groups than in smaller groups. This finding may also be attributed to the size of the work group. According to Shaw, as group size increases more group members contribute less than their "fair share" to accomplish the work group's tasks (28:156). Consequently, the perception that pregnant women belonging to larger groups do not carry their own weight on the job as well as pregnant members of smaller groups may be attributed to the larger size of the group rather than to the condition of pregnancy itself.

The second characteristic of group structure analyzed was group cohesion and morale. The data indicated that the better a group was perceived to work together, thus being more cohesive, the less pregnancy was perceived as a

problem and the more pregnant servicewomen were perceived to carry their own weight on the job.

According to Shaw, high cohesive groups, when compared to low cohesive groups, tend to be friendlier, more cooperative and more democratic. In addition, high cohesive groups tend to have more influence over group members, possess greater member satisfaction, are more likely to achieve group goals, and communicate more with each other (28:209). These qualities promote group integration which, in turn, lends itself to a greater concern for other members of the group (28:201). These attributes of cohesive groups may suggest why pregnancy is not perceived to be as much of a problem by more cohesive groups than by less cohesive groups.

On the other hand, one might examine this finding in light of the conclusions drawn by the Women in the Army Study Group. This group concluded that the presence of pregnant servicewomen had an adverse effect on the morale of the work group due to the resentment of servicemen who had to perform all or part of the pregnant servicewomen's duties (40: Sec VII, 5). Bolin agreed with these findings when he reported that the impacts of pregnancy could reflect a morale and motivational situation requiring special attention be paid to women's special needs (3:15). Knowing this, one might ask if this finding is a function of the presence of pregnant women in the work center

contributing to lower cohesiveness and morale, or if the work group is just generally less cohesive. The results obtained concerning supervision and the perception of pregnancy would suggest the latter.

Supervision was the third characteristic of group structure investigated and produced the strongest finding of this study. The data indicated that those who perceive supervision as a problem for the work group are more likely to perceive pregnancy as a problem, as compared to those who do not perceive pregnancy as a problem. Less than 10 percent of the members reporting good supervision saw pregnancy as a problem, whereas over 20 percent of the members reporting supervisory problems did so.

This finding suggests the importance of good supervision. Supervisors have a large influence on human behavior on the job. When employees have unpleasant work experiences, such as those often associated with poor supervision, they may become dissatisfied and less productive (19:184). Research has shown that an employee's supervisor has a profound effect on employee morale and motivation (21:219). Naturally, when good supervision exists, one might expect to find good group performance, morale, and cohesion. The finding reported here suggests that good supervision can affect the perception of pregnancy as a problem to some degree. Good supervisors have fewer problems, as one might expect.

The last characteristic of group structure investigated was group performance. The analyses indicated a slight difference between those who perceived good group performance and those who did not. The small difference found here is not surprising in view of the lack of a clear relationship between job satisfaction and productivity. Regardless of how work group members perceived pregnancy, they don't see it as a big difference in getting the job done. Members rating their group performance as good saw pregnancy as being only slightly less of a problem than members who rated their group performance lower. This finding underscores that the perception of pregnancy as a problem appears to be more a function of morale and work group cohesion than a function of actual productivity.

Situational Factors and the Perception of Pregnancy

The perception of pregnancy was somewhat influenced by the situational factors of the work group. The situational factors analyzed included physical location (overseas versus CONUS and traditional versus nontraditional job locations), the percent of women in the work group, and the amount of strength required on the job.

When the overseas versus CONUS physical locations were analyzed, no difference existed with regards to how those at overseas and CONUS locations perceived pregnancy. In fact, 15.5 percent at each physical location type

perceived pregnancy as a problem. One might have expected a difference in perceptions simply because of the different missions of overseas units. For example, overseas units tend to have more wartime exercises and deployments, tasks from which pregnant military women are often exempt.

When the perception of pregnancy and how pregnant servicewomen are perceived to carry their own weight on the job was analyzed in conjunction with traditional and nontraditional job locations, significant differences in perceptions were noted. For example, 16.87 percent of those assigned to predominantly nontraditional job locations (i.e., in hangars, on the flight line, in a hazardous area, in excessively warm or cold areas, out-of-doors) perceived pregnancy to be a problem for the work group. In contrast, 14.69 percent of those in traditional job locations (i.e., office environments) viewed pregnancy as a problem. This finding can be attributed to the difference in the tasks that frequently need to be accomplished in the different locations. For example, those assigned to predominantly nontraditional job locations are often required to do more physical work, such as lifting and climbing, than are those in an office or traditional job location. As such, those nontraditional job locations are probably more affected when a member of the work group becomes pregnant and must be reassigned to a job location which does not violate the pregnant member's

medical waiver. This finding tends to agree with Hoiberg and Ernst's finding that there is an affinity between motherhood and clerical or office work (11:276). This may also be a factor in why those in nontraditional job locations view pregnancy as somewhat more of a problem than those in traditional job locations.

The percentage of women in the work group also resulted in significant differences among the perception of pregnancy and how pregnant servicewomen are perceived to carry their own weight on the job. As the percentage of women in the work group increased, pregnancy was perceived to be more of a problem. Of those assigned to groups with between 10 and 25 percent women, 17.46 percent perceived pregnancy as a problem. In addition, 20 percent of those assigned to groups with more than 25 percent women viewed pregnancy as a problem for the work group.

One possible reason for this finding is straightforward. The greater the percentage of women in a work group, the greater the chance the work group will have to deal with one or more pregnancies at the same time. When this happens, the chance of the work group not being able to accomplish their primary task increases and mission accomplishment can be hampered. This is especially true if the woman is reassigned to another work group because medical restrictions prohibit her from accomplishing her primary duties. This finding agrees with Bolin's

conclusion stating that Army commanders with 8 percent or more women in their total force were often more concerned about pregnancy-related matters than those with less women assigned. Bolin attributed this finding to the fact that some commanders had experienced multiple pregnancies in assigned units at the same time (3:3).

The last of the situational factors analyzed was the amount of strength required on the job and how pregnant servicewomen are perceived. Members in jobs requiring strength reported a slightly greater perception of pregnancy as a problem (17.5 percent versus 13.5 percent). In general, strength requirements tend to be associated more with nontraditional jobs. Hence, this finding should not be surprising given the results found for traditional versus nontraditional job locations. This finding supports the conclusion that those assigned to nontraditional job locations, hence nontraditional job areas for women, perceive pregnancy as more of a problem than those assigned to traditional job locations.

Conclusions

In general, the enlisted members surveyed did not see pregnancy as being a major problem in Air Force work centers. Analyses of those who perceive pregnancy as a problem versus those who do not provided some insights into factors that may affect the perception of pregnancy as a problem in work groups. A summary of the findings follows:

In general, pregnancy was perceived as more of a problem:

- a. By those presently experiencing pregnancy (member or spouse is pregnant)
- b. By those assigned to work groups longer than two years
- c. By those belonging to groups with more than 20 people
- d. By those belonging to less cohesive groups
- e. By those belonging to groups where low morale was perceived to be a problem
- f. By those who perceived poor supervision in the work group
- g. By those who perceived poor group performance
- h. By those belonging to groups with more than 25 percent women
- i. By those assigned to nontraditional jobs with tasks requiring strength

Pregnancy was perceived to be less of a problem:

- a. By those assigned to work groups less than one year
- b. By those assigned to groups with less than 20 people
- c. By those belonging to more cohesive groups
- d. By those belonging to groups where low morale was not perceived to be a problem
- e. By those who perceived good supervision in the work group
- f. By those who perceived good group performance
- g. By those assigned to groups with less than 25 percent women
- h. By those assigned to jobs not requiring strength (traditional jobs, i.e., clerical)

Limitations

The enormous sample size afforded by the Air Force Organizational Assessment Study database strengthens the importance of the findings and yet, at the same time, invites caution in interpretation. Several points should be made to insure limitations of the database and the analyses reported here are kept in mind. First, the data reported are attitudinal survey data and subject to all the limitations of such data. While professionally developed surveys such as this one are the accepted standard measures of employee attitudes, true assessment of validity requires multiple measures at different times. The results reported herein are best viewed as a snapshot in time rather than acknowledged continuing characteristics of attitudes in Air Force work groups.

Second, the large sample size yields great power to detect small and possibly meaningless differences in a statistically significant manner. Thus, simply obtaining a significant difference statistically is insufficient grounds for a meaningful conclusion. One must look beyond the significance levels at the arrayed data and question its importance. In this thesis every effort has been made to do so. Examination of percentages is both useful and appropriate in this regard. For example, few could seriously question the findings in this study regarding

supervision. The differences reported are large, logical and meaningful.

Third, a statement should be made concerning the use of the chi-square statistical technique. While the chi-square technique does an adequate job for testing for independence, it is not in itself a good measure of association. Tests of association for use with chi-square analyses were not employed here due to difficulties in their use and interpretation where sample sizes are large. Consequently, these analyses do not speak directly to the strength of the associations suggested.

Fourth, the analyses reported herein proceeded from a descriptive rather than an inferential approach. Relationships between variables were not subjected to statistical analyses. The degree to which different variables interact and contribute to the perception of pregnancy was not part of this thesis effort. While this limits the predictive utility of the results, it does not limit the practical implications of the study findings.

Recommendations

An increase in the number of women in the Air Force is inevitable. As the percentage of women increases, the percentage of pregnant servicewomen will also increase. More service members will be faced with the task of dealing with pregnant servicewomen which, as shown, can hamper the mission accomplishment of an enlisted work group. The

degree to which Air Force mission accomplishment, readiness and force capability will be affected is problematic.

Although the research reported here did not reveal a major problem in how enlisted work group members perceive pregnant co-workers, that does not mean the perceptions will stay the same. Since a significant amount of money was spent in developing this survey, and it has proven itself to be a useful instrument, it is recommended the same instrument be administered periodically in the future. Consequently, it will be possible to note changes in perceptions as the number of women in the Air Force increase to determine whether or not pregnancy is being perceived as more or less of a problem as time goes on.

In addition to identifying the perceptions of the enlisted members in the future, it is also imperative that the perception of pregnancy among the officer force be identified as well. Because the officer force deals with issues on a grander scale, such as manning shortages and personnel utilization, their perceptions may be noticeably different than those of the enlisted force. Therefore, this issue warrants further research to identify officer perceptions.

Finally, it is important to understand how pregnant co-workers are perceived in particular Air Force specialties. Since the data indicated that pregnancy was perceived to be more of a problem by those assigned

in nontraditional areas, more research would seem to be appropriate.

Regardless of the extent to which pregnancy is perceived as a problem now, it could become a larger problem as the number of women in the Air Force increases. Even now, some actions would seem to be appropriate. Since the research has shown the importance of the supervisor, the most logical place to begin would be with supervisor training. Because supervisors will have the opportunity to work with more pregnant women, they must become more knowledgeable on pregnancy policy, how to deal with and plan for the eventual loss of a mother-to-be, and other specific aspects of managing women in the work place. Supervisors trained in these matters may influence the perceptions of those working for the supervisor, as was suggested by this and other research, since the supervisor has an impact on the perceptions of those he or she supervised.

Regardless of what actions are taken, the possibility exists that the perception of pregnancy and of pregnancy itself may impact the Air Force to a greater extent in the years ahead. This fact should not be forgotten nor should the issue and its impact go unstudied.

Appendix A: Questionnaire Items

The following survey items were extracted from the 148-item Air Force Organizational Assessment Study. They are numbered as they appeared in the original survey and as they are referred to in the text.

7. Thinking of the work group as you defined it in the box on your answer sheet, does this group have more than 20 people?

A. No
B. Yes

8. Thinking of the work group as you defined it in the box on your answer sheet, how long have you been assigned to this work group?

A. Less than 1 week
B. 1 week to less than 1 month
C. 1 month to less than 6 months
D. 6 months to less than 1 year
E. 1 year to less than 2 years
F. 2 years or more

12. Thinking of the group defined in the box, and including yourself, what is the total number of people in your work group?
-

13. How many in your work group (including yourself) are women?
-

For each of the following statements, mark the letter that best represents your view about your work group. Mark that letter on your answer sheet.

35. Physical strength is necessary to get the work done in my work group.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
37. People in my work group work well together.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
38. My work group does a bad job of handling short deadlines and surprise schedule changes.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
39. There is a friendly atmosphere in my work group.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
40. My co-workers take pride in their work.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
42. My work group produces high quality work.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
-

For each item listed below answer Yes or No, to show whether it describes where you worked last week, or the last week you worked in your work group. (MARK ONE ANSWER FOR EACH ITEM.)

	<u>Yes</u>	<u>No</u>
51. On a flight line	A	B
52. In an airplane (flying)	A	B
53. In a hazardous area	A	B
54. Warehouse/hangar/shop	A	B
55. In an excessively warm or cold area	A	B
56. Out-of-doors	A	B
57. In an office environment	A	B

For each of the following statements, mark the letter that best represents your opinion. Mark that letter on your answer sheet.

66. My work group supervisor makes sure work gets done.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
67. My work group supervisor handles disciplinary problems poorly.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
68. My work group supervisor insures that people new to the work group are trained effectively and thoroughly.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree

69. My work group supervisor deals with personnel shortages in the work group.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
70. My work group supervisor deals effectively with equipment shortages in the work group.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
71. My work group supervisor encourages me to continue my Air Force career.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
72. My work group supervisor sets a good example for us.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
73. My work group supervisor can be counted on to help me when I have technical questions about my job.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
74. My work group supervisor encourages me to take positions of increased responsibility.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree

75. My work group supervisor evaluates accurately, based on performance.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
76. My work group supervisor recommends people for awards when appropriate.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
77. My work group supervisor treats women more favorably than other work group members.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
78. My work group supervisor treats men more favorably than other group members.
- A. Strongly agree
 - B. Agree
 - C. Neither agree nor disagree
 - D. Disagree
 - E. Strongly disagree
79. Why don't these women carry their own weight? (MARK ALL THAT APPLY.)
- A. They don't have the ability or aptitude
 - B. They don't work hard, are lazy
 - C. They have a temporary health problem
 - D. They have a long-term health problem
 - E. They have a drinking/drug problem
 - F. They are not physically strong enough
 - G. They miss work too much
 - H. They haven't had time to learn the job yet
 - I. They have scheduling conflicts because of outside jobs
 - J. They have scheduling conflicts because of personal and family reasons
 - K. They are pregnant (still on the job)

- L. They are pregnant (in the hospital) or on maternity leave
- M. Women are restricted from some tasks in their duty AFSC by law or by Air Force policy
- N. Other

Please evaluate the extent to which each factor is a problem that interferes with your work group's ability to get the job done. Mark the letter that best represents your opinion on each item.

95. Is poor supervision a problem for your work group?

- A. Very serious problem
- B. Serious problem
- C. Moderate problem
- D. Slight problem
- E. No problem at all

104. Is low morale a problem for your work group?

- A. Very serious problem
- B. Serious problem
- C. Moderate problem
- D. Slight problem
- E. No problem at all

111. Is pregnancy a problem for your group?

- A. Very serious problem
- B. Serious problem
- C. Moderate problem
- D. Slight problem
- E. No problem at all

130. What is your sex?

- A. Male
- B. Female

132. When were you born?

- | | | |
|---------|---------|--------------------|
| A. 1967 | H. 1960 | O. 1953 |
| B. 1966 | I. 1959 | P. 1952 |
| C. 1965 | J. 1958 | Q. 1951 |
| D. 1964 | K. 1957 | R. 1950 |
| E. 1963 | L. 1956 | S. 1945-1949 |
| F. 1962 | M. 1955 | T. 1940-1944 |
| G. 1961 | N. 1954 | U. 1939 and before |
-

137. What is your current marital status?

- A. Single, never married
 - B. Married, active duty military spouse
 - C. Married, military spouse in Guard/Reserves
 - D. Married, civilian spouse
 - E. Separated, military spouse
 - F. Separated, civilian spouse
 - G. Divorced
 - H. Widowed
-

141. How many children (age less than 18) live with you?

- A. None
 - B. 1
 - C. 2
 - D. 3
 - E. 4
 - F. 5
 - G. 6
 - H. 7
 - I. 8 or more
-

142. Are you, or your spouse, currently pregnant?

- A. No
 - B. Yes
 - C. Not applicable
-

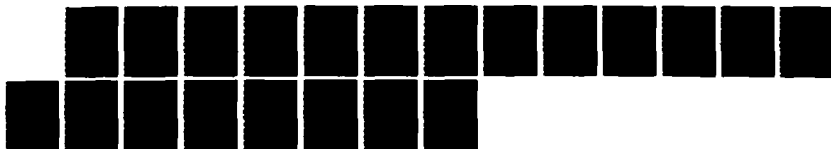
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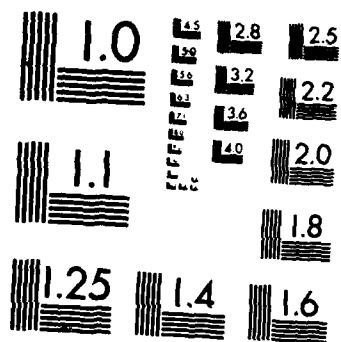
THE PERCEPTION OF PREGNANCY AMONG ENLISTED WORK GROUP
MEMBERS(U) AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB
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AFIT/GLM/LSB/86S-53 F/G 5/10

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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

Appendix B: Overall Results

The following results were obtained for each survey item:

Item 7. More than 20 people in the work group

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Yes	1285	10.9
No	10538	89.1
Total	11823	100.0

Item 8. How long assigned to work group

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Less than one week	77	.7
One week to less than one month	299	2.5
One month to less than six months	2327	19.7
Six months to less than one year	2783	23.6
One year to less than two years	3338	28.3
More than two years	2984	25.3
Total	11808	100.0

Item 12. Total number of people in the work group

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
One to three	1211	10.3
Four to six	3026	25.6
Seven to twelve	3958	33.5
Thirteen to twenty	2602	22.0
More than twenty	1021	8.6
Total	11818	100.0

Item 13. Total number of women in the work group

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
0 women	4845	40.9
1 woman	3005	25.4
2 women	1668	14.5
3 women	964	8.1
4 to 6 women	1017	8.6
7 to 12 women	279	2.4
13 to 20 women	46	.4
More than 20 women	11	.1
Total	11835	100.0

Item 35. Physical strength necessary to get work done

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	1744	14.8
Agree	2974	25.2
Neither agree nor disagree	2029	17.2
Disagree	2735	23.1
Strongly disagree	2335	19.8
Total	11817	100.0

Mean = 3.080

Standard Deviation = 1.363

Item 37. Work well together

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	3431	29.0
Agree	4962	41.9
Neither agree nor disagree	2127	18.0
Disagree	939	7.9
Strongly disagree	377	3.2
Total	11836	100.0

Mean = 2.144

Standard Deviation = 1.026

Item 38. Handle short deadlines

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	500	4.2
Agree	717	6.1
Neither agree nor disagree	1494	12.6
Disagree	4477	37.9
Strongly disagree	4640	39.2
Total	11828	100.0

Mean = 4.018

Standard Deviation = 1.068

Item 39. Friendly atmosphere in work group

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	3826	32.3
Agree	5011	42.4
Neither agree nor disagree	1988	16.8
Disagree	685	5.8
Strongly disagree	322	2.7
Total	11832	100.0

Mean = 2.042

Standard Deviation = .983

Item 40. Workers take pride in work

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	2899	24.5
Agree	4808	40.6
Neither agree nor disagree	2856	24.1
Disagree	925	7.8
Strongly disagree	341	2.9
Total	11829	100.0

Mean = 2.239

Standard Deviation = 1.001

Item 42. Produce high quality work

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	3733	31.5
Agree	5360	45.3
Neither agree nor disagree	2137	18.1
Disagree	464	3.9
Strongly disagree	140	1.2
Total	11834	100.0

Mean = 1.979

Standard Deviation = .871

Item 51. Work on the flight line

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Yes	3832	32.4
No	7987	67.6
Total	11819	100.0

Item 52. Work in an airplane

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Yes	399	3.4
No	11420	96.6
Total	11819	100.0

Item 53. Work in a hazardous area

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Yes	3762	31.8
No	8057	68.2
Total	11819	100.0

Item 54. Work in a warehouse/hangar/shop

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Yes	4988	42.2
No	6832	57.8
Total	11820	100.0

Item 55. Work in an excessively warm or cold area

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Yes	3740	31.7
No	8076	68.3
Total	11816	100.0

Item 56. Work out-of-doors

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Yes	4602	39.0
No	7211	61.0
Total	11813	100.0

Item 57. Work in an office

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Yes	6578	55.7
No	5241	44.3
Total	11819	100.0

Item 66. Supervisor makes sure work gets done

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	4046	34.6
Agree	5193	44.4
Neither agree nor disagree	1582	13.5
Disagree	670	5.7
Strongly disagree	208	1.8
Total	11699	100.0

Mean = 1.957

Standard Deviation = .932

Item 67. Supervisor handles discipline problems well

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	933	8.0
Agree	1443	12.3
Neither agree nor disagree	2690	23.0
Disagree	4227	36.1
Strongly disagree	2401	20.5
Total	11694	100.0

Mean = 3.489

Standard Deviation = 1.177

Item 68. Supervisor insures workers are well trained

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	2251	19.2
Agree	4399	37.6
Neither agree nor disagree	2803	24.0
Disagree	1500	12.8
Strongly disagree	741	6.3
Total	11694	100.0

Mean = 2.494

Standard Deviation = 1.128

Item 69. Supervisor deals poorly with personnel shortages

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	713	6.1
Agree	1229	10.5
Neither agree nor disagree	2807	24.0
Disagree	4471	38.2
Strongly disagree	2475	21.2
Total	11695	100.0

Mean = 3.579

Standard Deviation = 1.115

Item 70. Supervisor deals effectively with equipment shortages

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	1906	16.3
Agree	4924	42.1
Neither agree nor disagree	3497	29.9
Disagree	983	8.4
Strongly disagree	386	3.3
Total	11696	100.0

Mean = 2.403

Standard Deviation = .966

Item 71. Supervisor encourages continuing AF career

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	1792	15.3
Agree	2843	24.3
Neither agree nor disagree	5040	43.1
Disagree	1207	10.3
Strongly disagree	815	7.0
Total	11697	100.0

Mean = 2.693

Standard Deviation = 1.069

Item 72. Supervisor sets good example

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	2535	21.7
Agree	4293	36.7
Neither agree nor disagree	2516	21.5
Disagree	1260	10.8
Strongly disagree	1095	9.4
Total	11699	100.0

Mean = 2.495

Standard Deviation = 1.208

Item 73. Supervisor can answer technical questions

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	3568	30.5
Agree	4246	36.3
Neither agree nor disagree	1758	15.0
Disagree	1216	10.4
Strongly disagree	911	7.8
Total	11699	100.0

Mean = 2.287

Standard Deviation = 1.221

Item 74. Supervisor encourages increased responsibility

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	2999	25.6
Agree	4422	37.8
Neither agree nor disagree	2787	23.8
Disagree	926	7.9
Strongly disagree	560	4.8
Total	11694	100.0

Mean = 2.284

Standard Deviation = 1.078

Item 75. Supervisor evaluates accurately

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	2562	21.9
Agree	4568	39.1
Neither agree nor disagree	2957	25.3
Disagree	942	8.1
Strongly disagree	661	5.7
Total	11690	100.0

Mean = 2.365

Standard Deviation = 1.082

Item 76. Supervisor recommends people for awards

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	1959	16.8
Agree	3597	30.8
Neither agree nor disagree	3772	32.3
Disagree	1372	11.7
Strongly disagree	984	8.4
Total	11684	100.0

Mean = 2.643

Standard Deviation = 1.142

Item 77. Supervisor treats women more favorably

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	348	3.0
Agree	536	4.6
Neither agree nor disagree	3844	33.0
Disagree	3912	33.6
Strongly disagree	3016	25.9
Total	11656	100.0

Mean = 3.747

Standard Deviation = .989

Item 78. Supervisor treats men more favorably

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Strongly Agree	207	1.8
Agree	306	2.6
Neither agree nor disagree	4101	35.2
Disagree	4092	35.1
Strongly disagree	2941	25.3
Total	11647	100.0

Mean = 3.795

Standard Deviation = .910

Item 83K. Pregnant on job - carry own weight

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Yes	225	9.9
No	2050	90.1
Total	2275	100.0

Item 83L. Pregnant in hospital - carry own weight

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Yes	60	2.6
No	2215	97.4
Total	2275	100.0

Item 95. Poor supervision a problem

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Very serious problem	1196	10.1
Serious problem	1151	9.7
Moderate problem	1867	15.8
Slight problem	2253	19.0
No problem	5361	45.3
Total	11828	100.0

Mean = 3.797

Standard Deviation = 1.367

Item 104. Low morale a problem

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Very serious problem	2181	18.5
Serious problem	1558	13.2
Moderate problem	1844	15.6
Slight problem	2693	22.8
No problem	3539	30.0
Total	11815	100.0

Mean = 3.326

Standard Deviation = 1.480

Item 111. Pregnancy a problem

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Very serious problem	215	1.8
Serious problem	209	1.8
Moderate problem	480	4.1
Slight problem	915	7.8
No problem	9954	84.5
Total	11773	100.0
Mean = 4.714		
Standard Deviation = .782		

Item 130. Respondent's sex

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Male	9337	79.1
Female	2470	20.9
Total	11807	100.0

Item 132. Respondent's year of birth

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
1967	4	.0
1966	23	.2
1965	453	3.8
1964	852	7.2
1963	1137	9.6
1962	1171	9.9
1961	1051	8.9
1960	891	7.6
1959	755	6.4
1958	602	5.1
1957	533	4.5
1956	485	4.1
1955	432	3.7
1954	412	3.5
1953	339	2.9
1952	340	2.9
1951	307	2.6
1950	296	2.5
1945 - 1949	1222	10.4
1940 - 1944	393	3.3
1939 and before	94	.8
Total	11792	100.0

Item 137. Respondent's marital status

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Single, never married	3681	31.2
Married, AD military spouse	1496	12.7
Married, military spouse (guard/res)	64	.5
Married, civilian spouse	5493	46.5
Separated, military spouse	97	.8
Separated, civilian spouse	234	2.0
Divorced	715	6.1
Widowed	21	.2
Total	11801	100.0

Item 141. Number of children less than 18 years old

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
None	6651	56.4
1	2245	19.0
2	2032	17.2
3	653	5.5
4	169	1.4
5	32	.3
6	11	.1
7	1	.0
8 or more	6	.1
Total	11800	100.0

Item 142. Respondent or spouse currently pregnant

<u>Response</u>	<u>Number</u>	<u>Frequency</u>
Yes	778	6.6
No	8716	73.9
Not applicable	2304	19.5
Total	11798	100.0

Bibliography

1. "An Air Force Almanac," Air Force Magazine, 69: 181-197 (May 1986).
2. Ballard, John A., Assistant Professor of Organizational Behavior and Management. Personal interview. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson AFB OH, 12 September 1985.
3. Bolin, Stanley F. and others. Women Soldiers in Korea: Command Concerns About Pregnancy, Facilities and Other Issues. Army Project Number 2Q762717A767. U.S. Army Research Institute for the Behavioral and Social Sciences, Alexandria VA, November 1977 (AD-A076 694).
4. Crossland, Dick. "G.I. Janes Join Joes as Readiness Asset," The Officer, 59: 13-15 (January 1983).
5. Department of the Air Force. Airmen Assignments (PA). AFR 39-11. Washington: HQ USAF, 3 May 1985.
6. -----. Dependent Care Responsibilities (PA). AFR 35-39. Washington: HQ USAF, 22 August 1983.
7. -----. Medical Service: Professional Policies and Procedures. AFR 160-12. Washington: HQ USAF, 13 June 1985.
8. -----. Officer Assignments. AFR 36-20. Washington: HQ USAF, 25 October 1985.
9. -----. Unit Combat Readiness. AFR 55-15. Washington: HQ USAF, 22 November 1982.
10. Donnelly, John H. and others. Fundamentals of Management (Fifth Edition). New York: Business Publications, Inc., 1984.
11. Hoiberg, Anne and John Ernst. Motherhood in the Military: Conflicting Roles for Navy Women? Interim Report. Report Number 79-31. Naval Health Research Center, San Diego CA, August 1979 (AD-A122 050).
12. Hoiberg, Anne and Patricia J. Thomas. "The Economics of Sex Integration: An Update of Binkin and Bach," Defense Management Journal, 18: 18-25 (Second Quarter 1982).

13. Hoiberg, Anne. Health Status of Women in the U.S. Military. Report 82-32. Naval Health Research Center, San Diego CA, December 1982 (AD-A126 018).
14. -----. Women in the Navy: Performance, Health, and Motherhood. Report Number 79-15. Naval Health Research Center, San Diego CA, May 1979 (AD-A130 167).
15. -----. "Women in the Navy - Morale and Attrition," Armed Forces and Society, 4: 659-671 (August 1978).
16. Keys, Bernard and Joy L. Henshall. Supervision. New York: John Wiley and Sons, Inc., 1984.
17. Landrum, Cecile S. "The Changing Military Family: Impacts on Readiness," Parameters, 10: 78-85 (September 1980).
18. Levin, Michael. "Women as Soldiers - The Record So Far," The Public Interest, 31-44 (Summer 1984).
19. Lowrey, Robert C. Supervisory Management: Guidelines for Application. Englewood Cliffs NJ: Prentice-Hall, Inc., 1985.
20. Mitchell, Terence R. People in Organizations: Understanding Their Behavior. New York: McGraw-Hill, Inc., 1978.
21. Morgan, James E., Jr. Administrative and Supervisory Management Support (Second Edition). Englewood Cliffs NJ: Prentice-Hall, Inc., 1982.
22. Mossman, Frances I. "Is Woman Power Changing Defense?" The Bureaucrat, 14: 24-28 (Spring 1985).
23. Nabors, Robert L. "Women in the Army: Do They Measure Up?" Military Review, 62: 50-61 (October 1982).
24. Olson, Marsha S. and Susan S. Stumpf. Pregnancy in the Navy: Impact on Absenteeism, Attrition, and Workgroup Morale, Final Report, June 1975 - December 1977. Report Number NPRDC-TR-78-35. Navy Personnel Research and Development Center, San Diego CA, September 1978 (AD-A061 321).
25. Rapoport, Daniel. "Women in the Military: The Barriers to Full Equality," National Journal, 565-567 (April 1980).

26. Roberts, Grace L. and others. Evaluation of Women in the Army: Final Report, 10 August 1985 - 28 February 1978. Office of the Deputy Chief of Staff for Personnel, Washington DC, March 1978 (AD-A057 114).
27. Roman, R.N. "Pregnant Marines," Marine Corps Gazette, 19-20 (July 1981).
28. Shaw, Marvin E. Group Dynamics: The Psychology of Small Group Behavior (Second Edition). New York: McGraw-Hill, Inc., 1976.
29. SPSS, Inc. SPSS User's Guide (Second Edition). New York: McGraw-Hill, Inc., 1986.
30. Stabile, B. L. "Defense Advisory Committee on Women in the Services," Defense 84, 17-18 (July 1984).
31. -----. "Women in Uniform: A Coast Guard View," Defense 84, 15-16 (July 1984).
32. Stewart, Norma S. "Active Duty Pregnancy," Marine Corps Gazette, 67: 19-20 (February 1983).
33. Taylor, Thayer C. "Demographics of Women in the Military," Interservice, 3: 29-53 (Fall 1983).
34. Thomas, Patricia J. "Attrition Among Navy Enlisted Women," Defense Management Journal, 16: 43-49 (Second Quarter 1980).
35. United States Air Force Special Study Team. United States Personnel Force Composition Study: An Analysis of the Effects of Varying Male and Female Force Levels. HQ USAF, Washington DC, March 1985.
36. -----. United States Personnel Force Composition Study: An Analysis of the Effects of Varying Male and Female Force Levels, Annex Five. HQ USAF, Washington DC, March 1985.
37. U.S. Congress. Department of Defense Authorization Act of 1985. Public Law No. 98-525, 98th Congress, 2nd Session. Reprinted in United States Code Congressional and Administrative News 98th Congress, Second Session 1984, Volume 2. St. Paul MN: West Publishing Company, 1985.
38. Vessey, John W., Jr. Quoted in "Is Women Power Changing Defense?" by Frances I. Mossman, The Bureaucrat, 14: 24-28 (Spring 1985).

39. Weinberger, Casper. Quoted in "Is Women Power Changing Defense?" by Frances I. Mossman, The Bureaucrat, 14: 24-28 (Spring 1985).
40. Women in the Army Study Group. The Final Report of the Women in the Army Study Group. Office of the Deputy Chief of Staff for Personnel, Washington DC, December 1976 (AD-A036 490).

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This thesis examined how 11,847 Air Force enlisted work group members stationed at 30 bases throughout the world perceived pregnant co-workers. As a framework it used Terence R. Mitchell's model for understanding group behavior. Individual differences, characteristics of group structure, and situational factors were examined in relation to the perception of pregnancy as a problem.

Analyses were accomplished using data extracted from the Air Force Survey of Work Groups prepared for the United States Air Force by the National Opinion Research Center, and Systems Research and Applications Corporation. Analyses indicated only 15.5 percent of the sample perceived pregnancy as a problem; less than 10 percent of the sample indicated pregnant women do not carry their own weight on the job. There was no difference between how males and females perceived pregnant co-workers.

The data indicated pregnancy was perceived to be more of a problem by those members who 1) belonged to less cohesive groups, 2) perceived poor supervision in their work group, 3) had been assigned to their work group for over two years, 4) belonged to groups with more than 25 percent women, 5) worked in nontraditional jobs requiring strength, and 6) were pregnant or had a pregnant spouse. These and other findings are discussed.



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